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Survey of 1999 Maritime University Graduates in 2001

April 2003

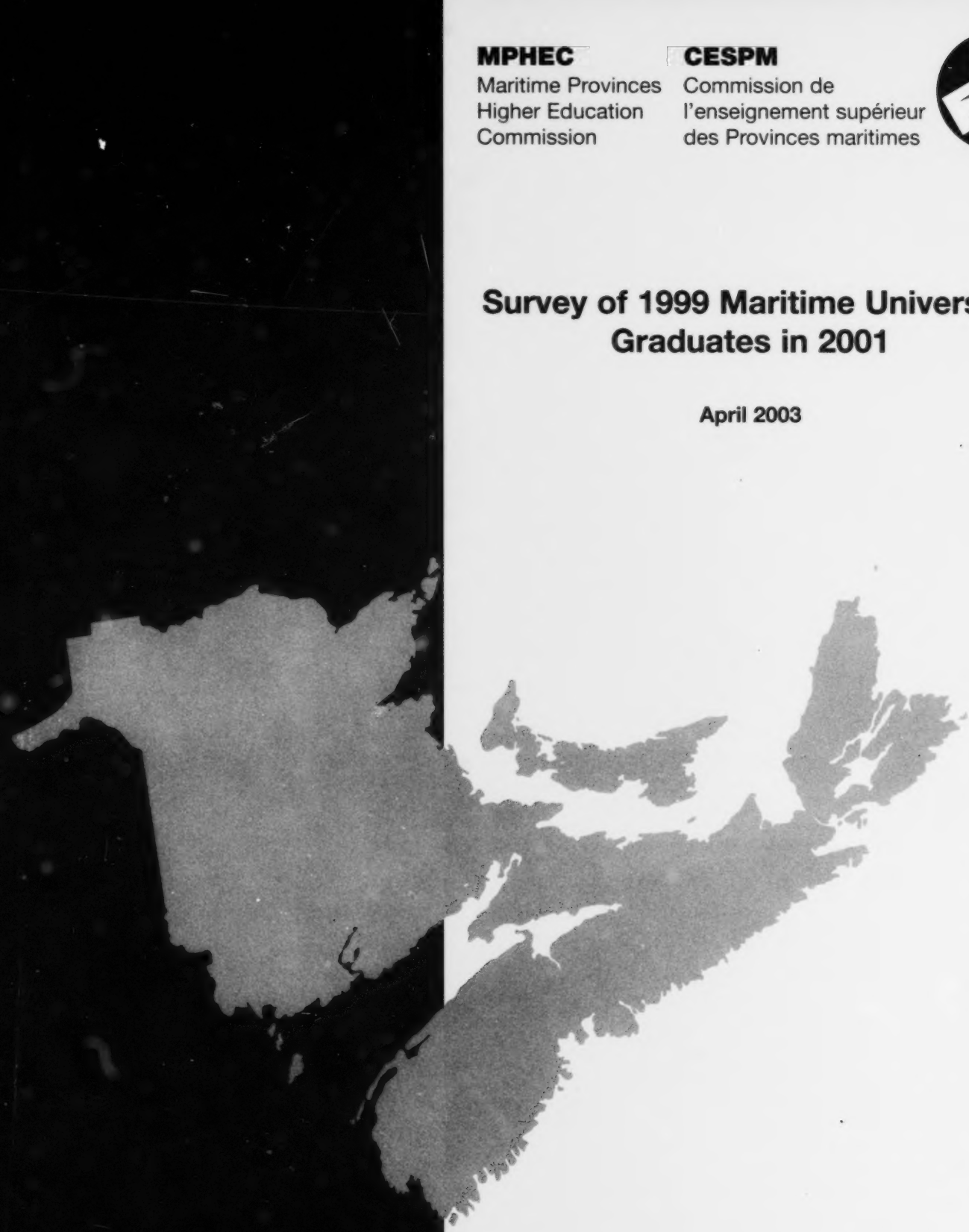

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Table of Contents

Executive Summary i

Introduction 1
Methodology 2

1. The Class of 1999 5

2. The 1999 Program of Study 12
   - 2.1 Reason for Enrolling 12
   - 2.2 Factors Affecting Choice of the 1999 Program 13
   - 2.3 Program Characteristics 16
   - 2.4 Evaluating the University Experience 21

3. Work and Education 33
   - 3.1 Labour Force Activity 33
   - 3.2 Relatedness of Job and Education 47
   - 3.3 Post-1999 Studies 57
   - 3.4 Graduate Mobility 63

4. Financial Status of 1999 Graduates 69
   - 4.1 Overall Earnings 69
   - 4.2 Funding the 1999 Degree 79
   - 4.3 Financing Post-1999 Studies 87
   - 4.4 Borrowing in Both Pre- and Post-1999 91
   - 4.5 Current Overall Financial Status 92
   - 4.6 Repayment Experience (Loans taken out to finance the 1999 program) 94
   - 4.7 Impact of Debt Load on Employed Graduates' Economic Well-Being 101

5. Graduate Outlook 106

6. Conclusions and Implications 109

Appendix 1 Major Fields of Study 117
Degree Level 121

Appendix 2 Occupation Coding Scheme 122

EXECUTIVE SUMMARY

In 2001, the Maritime Provinces Higher Education Commission (MPHEC), in partnership with the governments of New Brunswick, Nova Scotia and Prince Edward Island, commissioned a survey of 1999 Maritime university graduates. This survey is the fourth in the Commission's survey program and follows the same primary objective as the previous surveys: to discover the nature of the transition Maritime university graduates have experienced between the learning force and the work force and back again, taking into consideration their experience prior to enrolling.

The Class of 1999

The profile of the Class of 1999 graduates is similar to that of previous graduating classes.

- The Class of 1999 is made up of 59% women and 41% men.
- English-speaking graduates make up 87%, and French-speaking graduates, 10% of the entire sample; 1% reported they spoke both French and English at home, while 2% reported another home language.
- 61% of the Class graduated from an institution in Nova Scotia, and 34% from an institution in New Brunswick. The remaining 4% graduated from the University of Prince Edward Island.
- 57% of respondents enrolled in their 1999 program of study with a high school diploma, 16% enrolled with prior postsecondary education and/or a postsecondary credential below the Bachelor's level. The remaining 27% had attained a Bachelor's degree or above prior to beginning studies leading to the 1999 degree.
- 58% of graduates reported that their parents' combined level of education was below the Bachelor's level; 22% said that one parent had a Bachelor's degree or above; 20% reported both parents had a Bachelor's degree or above.

The 1999 Program of Study

- The majority of graduates (86-93%) said it was important or very important to have a chance at a good income, to acquire in-depth knowledge of a particular field, and to acquire skills for a particular job.
- Program choice is influenced by gender: Women were most likely to have completed programs in Social Sciences (25%) and Education (17%); far fewer chose programs in Engineering & Applied Sciences (3%) and Mathematics & Physical Sciences (4%). Men were most likely to have completed programs in Commerce & Administration (21%), followed by Social Sciences (17%); 14% completed programs in Engineering & Applied Sciences and 13%, programs in Mathematics & Physical Sciences.
- Program choice is also influenced by prior educational attainment: graduates who enrolled with a high school diploma were most likely to have followed a program in the Social Sciences (25%), followed by Commerce & Administration (17%); those who enrolled with postsecondary education below the Bachelor's level were most likely to have completed programs in Commerce & Administration (20%), followed by Social Sciences (18%) and Health Professions (18%). Graduates with prior education at the Bachelor's level or above were most likely to have completed a program in Education (37%), followed by Social Sciences (16%).

Evaluating the 1999 Program of Study

- Graduates were satisfied (93-95% satisfied or very satisfied) with class size, quality of teaching and access to professors; fewer (79% satisfied or very satisfied) expressed satisfaction with computer equipment available.
- The vast majority of graduates agreed (91-96%) that their program had developed their skills of communication, independent/critical thinking and decision-making abilities to some or a great extent. Somewhat fewer agreed that their writing skills (81%), knowledge of career opportunities (69%) and math skills (55%) had been developed to at least some extent.
- Generally speaking, Maritime university graduates have a positive view of the value of their education: 83% agreed that the time they had invested was worth it and 78% agreed that the money they had invested was worth it.
- Whether graduates thought their financial investment was worth it was influenced by their financial situation at the time of the interview: 87% of those earning $40,000 or more said their financial investment was worth it; 74% of graduates earning less than $20,000 said their financial investment was worth it.
- If given the chance to do it again, 81% of graduates said they would choose to attend the same institution, and 77% said they would pursue the same field of study.

Work and Education

Labour Force Status

Class of 1999 graduates have been as successful as previous graduating classes in finding employment. The overwhelming majority were in the labour force during the reference week. Among graduates who were not in the labour force in 2001, most were in school.

- 90% of Class of 1999 graduates were part of the labour force during the reference week; 10% were not. One year after graduation, 91% of Class of 1996 graduates were in the labour force; by four years post-graduation, 89% were in the labour force.
- The employment rate of the Class of 1999 graduates was 93%. The unemployment rate was 7.2%. By comparison, the employment rate for the Class of 1996 one year after graduation was 88%; by four years out the employment rate had reached 93%.
- Of those graduates who were not in the labour force, 74% were in school full-time, 22% were not looking for work, and 4% were waiting for a job to start more than four weeks from the time of the interview. By comparison, of those Class of 1996 graduates who were not in the labour force one year post-graduation, 50% reported they were in school; by four years post-graduation, this proportion had increased to 69%.

Nature of Employment

Two years after graduation, Class of 1999 graduates have been highly successful in finding full-time permanent positions.

- Among employed graduates, 89% worked full-time (30 or more hours per week) at their main job during the reference week and the remaining 11% worked part-time.
- On average, employed graduates worked 41 hours per week, up slightly from Class of 1996 graduates (four years after graduation) who reported an average of 40 hours per week.
- 71% of graduates held a permanent position at their main job; 13% worked on contract and 16% held a temporary or casual position.
- While graduates worked in a variety of occupations in 2001, the single most popular job was teaching (20%). The next most common types of occupations were Administrative/Clerical (7%), Management (5%), Nursing (5%), Computer-related (5%) and Social Work (5%). The overall distribution by occupation among members of the Class of 1999 was similar to the Class of 1996.

Joblessness Since 1999 Graduation

Many graduates have experienced at least one period of joblessness since graduating in 1999. For the majority who experienced joblessness, it was a voluntary decision.

- 48% of all graduates reported being without a job at least once since graduating in 1999, including 19% who had been without work more than once. By comparison, 44% of all Class of 1996 graduates reported being without work at least once in the four years since they graduated.
- Among graduates who were not working in the reference week, but who had reported having had at least one job since graduating, 38% had been laid off and 61% had left their last job voluntarily.
- The reason given most often by graduates for their non-working status was that they left their job in order to go to school.

Relatedness of Job And Education

Among graduates of the Class of 1999, there is a clear relationship between their employment and their perceptions of their university education. The majority believe it is important to be working in a job related to their studies, and indeed, most were successful in this regard, agreeing that their program had helped them obtain their job. Graduates successful in finding employment closely aligned with their field of study and acquired skills are more inclined to agree that their university education had been worth both the personal investment of time and the financial investment.

- 85% of employed graduates said it was important or very important that their job be related to their field of study; only 15% reported it was not very, or not at all, important.
- 77% of employed graduates were working in a job that was either somewhat or closely related to their field of study. One year after graduation, 70% of Class of 1996 graduates had a job either somewhat or directly related to their field of study, by four years after graduation, this proportion had increased to 80%.
- An important determinant of graduates' successes in finding related employment is their field of study: graduates of Health Professions (76%), Education (64%) and Engineering & Applied Sciences (57%) were the most likely to report that their job was closely related. On the other end of the scale, 34% of Agricultural & Biological Sciences, 32% of Social Sciences, and 28% of Humanities graduates reported that their job was closely related to their field of study. Very similar patterns were observed among Class of 1996 graduates.
- 74% of employed graduates agreed their education had helped them at least to some extent in finding a job; 26% said it had helped them very little or not at all. This compares to 78% of Class of 1996 graduates, interviewed four years after graduating, who agreed their education had helped them at least to some extent in finding a job.
- 77% of employed graduates said they were using the skills learned in their 1999 program to some or a great extent; 23% reported they were using these skills very little or not at all. These findings are nearly identical to the results obtained for the Class of 1996 four years post-graduation.
- Field of study has an important influence on skills use in employment: 70% of graduates of Health Professions programs reported using their skills to a great extent, as compared to graduates of programs in Social Sciences (31%) and Humanities (31%).
- 58% of graduates whose job was closely related to their field of study and 62% of those who were using their skills to a great extent said their education was well worth the financial investment. This compares to just 33% of those whose job was not at all related, and 28% of those who said they were not using their skills at all.
- 60% of graduates whose job was closely related to their field of study and 65% of those

who were using their skills to a great extent said their education was well worth the personal investment of time. This compares to just 41% of those whose job was not at all related, and 36% of those who said they were not using their skills at all.

Post-1999 Studies

- For many graduates the degree obtained in 1999 is a stepping stone to further study: within two years of graduating, 47% of all graduates had enrolled in at least one program leading to a degree, diploma or certificate.
- 21% of all graduates had completed at least one program since 1999.
- For the most part, graduates who chose to return to school did so on a full-time basis (75%); 23% pursued their post-1999 studies part-time, and the remaining 2% combined full- and part-time studies.
- Following the trend established by previous graduating classes, 59% of those who chose to go on to further study did so for employment-related reasons, and 23% did so for general self-improvement.
- 69% of those who returned to study did so at the university level.
- 33% of those graduates who returned to study at the university level chose a program in the field of Education.

Mobility of Graduates

While the majority of graduates in each province remain in their home province to study and continue to live there two years after graduation, the net loss of Maritime university graduates is up slightly from the Class of 1996, measured four years out. There are provincial differences in the nature of graduate movements, and these follow patterns of previous graduating classes.

Mobility of Graduates on a Regional Basis

- 80% of 1999 Maritime university graduates lived in the region prior to enrolling in their 1999 program (down from 85% of the Class of 1996); 20% came from other parts of Canada, or another country.
- In 2001, 68% of all graduates were still in the region; 32% were living outside the Maritimes.
- The proportion of graduates originally from the Maritimes and remaining in the region two years after graduation (78%) was down an estimated nine percentage points from the Class of 1996 (87%).
- 27% of graduates who came to study from outside the region continued to live in the Maritimes in 2001.
- When combined, the overall movements of graduates into and out of the Maritimes results in a net loss of 15%; among graduates of the Class of 1996 four years after graduation, the net loss was 14%.

Mobility on a Provincial Basis

- 92% of graduates originally from Nova Scotia obtained their 1999 degree in their home province; 73% remained there in 2001.
- 85% of graduates originally from New Brunswick obtained their 1999 degree in their home province; 71% remained there in 2001.
- 67% of graduates originally from Prince Edward Island obtained their 1999 degree in their home province; 63% remained there in 2001.
- Among graduates originally from a Maritime province but not living in the region in 2001, the most popular destination was Ontario (50%).
- Among graduates originally from a Maritime province, graduates of Engineering & Applied Sciences (39%) and Mathematics & Physical Sciences (35%) were most likely, and graduates of Education programs (16%) least likely, to have left the region following graduation.

Earnings

Graduates of the Class of 1999 are doing well overall, earning more than their counterparts who graduated in 1995 and 1996. However, this overall

success hides earnings disparities based on gender, field of study and home language.

- Employed graduates earned on average $696 per week, or $36,192 annually; this is 31% more than the Class of 1995 two years after graduation, and an estimated 20% more than the Class of 1996 two years after graduation.
- In 2001 constant dollars, the Class of 1999 earned an estimated 13% more than the Class of 1996 two years post-graduation.
- Graduates employed full-time earned $743 per week.
- Full-time weekly earnings differed significantly by field of study. The following is a list of average full-time weekly earnings by field of study:
  - Health Professions ($885)
  - Engineering & Applied Sciences ($872)
  - Mathematics & Physical Sciences ($856)
  - Commerce & Administration ($812)
  - Education ($801)
  - Social Sciences ($631)
  - Fine & Applied Arts ($614)
  - Agricultural & Biological Sciences ($569)
  - Humanities ($568)
- Female graduates employed full-time earned $694 per week, or 85% of the earnings of male graduates, who earned $812 per week. Many factors influence this gap, including the average number of hours worked: men working full-time reported an average work week of 45 hours, while women reported working an average of 42 hours. Accounting for this difference in number of hours worked, women earned the equivalent of $16.52 per hour, or 92% of men's hourly earnings of $18.00.
- French-speaking graduates working full-time earned $671 per week, or 89% of the earnings of English-speaking graduates, who earned $753 per week. Many factors influence this gap, including the average number of hours worked: English-speaking graduates working full-time reported working an average of 43 hours per week, while French-speaking graduates reported working an average of 41 hours. Accounting for this difference in number of hours worked, French-speaking graduates earned the equivalent of $16.36 per hour, or 93% of the hourly earnings of English-speaking graduates ($17.51).

Financing the 1999 Degree

Class of 1999 graduates were more likely to have borrowed, and borrowed considerably more, than the Class of 1996 to finance their university education. While the Class as a whole is managing to reduce overall debt, certain groups of graduates were are more successful than others in doing so.

- 59% of graduates borrowed money to finance their 1999 degree. This is up eight percentage points from the Class of 1996 (51%).
- Overall, graduates borrowed an average of $20,918. This is 30% more than the average amount borrowed by the Class of 1996.
- In 1999 constant dollars, the Class of 1999 borrowed 24% more than the Class of 1996.
- 27% borrowed $30,000 or more - this proportion has more than doubled from the proportion of 1996 graduates borrowing in this range (12%).
- The most popular source of funding was government student loans, with 81% of all borrowers turning to this source, taking on an average debt of $19,744. 31% borrowed an average of $10,687 from financial institutions; 15% borrowed an average of $7,760 from family members and 6% borrowed an average of $7,951 from other sources.
- Two years after graduating, the overall debt outstanding for the 1999 program was $16,462, a reduction of 21%.
- The average debt outstanding to government sources had dropped 17% to $16,435; graduates owed on average $7,231 to financial institutions two years after graduation, a drop of 32%.

- Graduates of Master's and Doctoral level programs were the most successful at paying down debt: they reduced their debt by 37% over two years. By comparison, graduates of Bachelor's programs paid off 20%, First Professional graduates 23%, and Diploma/Certificate graduates 19%, of their loans.

Field of study also has a strong influence in repayment: graduates of Commerce & Administration, Health Professions, Engineering & Applied Sciences and Mathematics & Physical Sciences paid off 24-26% of their debt, while graduates of Agricultural & Biological Sciences were somewhat less successful, paying off 15% of their debt.

Financing Post-1999 Studies

For many graduates, returning to study after graduation meant borrowing money, and for some, this was in addition to amounts borrowed to finance the 1999 degree. With only two years in which to borrow *and* begin repayment, many graduates have seen little change in the amount of debt outstanding for post-1999 studies.

- 48% of all graduates who returned to study since 1999 borrowed money to finance post-1999 studies.
- Overall, graduates borrowed $15,362. The amount outstanding in 2001 was $14,161, a reduction of 8%.
- As with borrowing to finance the 1999 program, government student loans were the most popular source of funds: 82% of graduates borrowed an average of $12,275, and owed an average of $11,814 (a drop of 4%).
- Another 27% of graduates turned to financial institutions, borrowing $12,880; 11% received loans from family members, borrowing an average of $8,133. Other sources accounted for 8% of borrowing, with an average debt accumulated of $10,234.
- Men borrowed significantly more ($16,636) than women ($14,506).
- Borrowing to finance their education was not a new experience for a good proportion of graduates: 57% of those who borrowed to finance their 1999 program and returned to study had also borrowed to finance post-1999 studies. Among this group of graduates, combined borrowing in both pre- and post-1999 periods amounted to an average of $35,841. By 2001, these graduates managed to reduce this overall debt by 6%, with $33,670 outstanding at the time of the interview.
- Graduates who borrowed to finance post-1999 studies, but had accumulated no debt from their 1999 program, took on an average debt of $17,101, and owed $15,432 in 2001.

Overall Debt Status

- The total average debt accumulated from both the 1999 program and/or post-1999 studies stood at $23,731; by 2001, graduates still owed an average of $19,503, having repaid 18% of their debt.

Loan Repayment Experience for Loans Taken out to Finance the 1999 Program

- 79% of graduates reported they had always been able to make their payments on time; 12% said they had occasionally missed a payment, and 4% reported getting behind in their payments, either by one or two payments, or for three months or longer at a time. 3% stopped making payments a few times, and 2% had stopped altogether.
- Repayment experiences depend on the amount borrowed: 85% of those who had borrowed less than $15,000 said they had never experienced any problems, while 70% of those who borrowed $30,000 or more had never experienced any problems.
- Those graduates experiencing problems were most likely (49%) to attribute them to unstable work or income, or a regular but insufficient income. A further 13% blamed

their difficulties on unemployment, while another 10% said they had had unexpected expenses.

- 28% of graduates who borrowed money were aware of government assistance programs. Awareness was greatest among those who had experienced difficulties with repayment: 38% said they were aware of such programs.

Becoming Debt Free (Loans Taken out to Finance the 1999 Program)

- 13% of graduates reported that they had completely paid off all loans taken out to finance their 1999 program.
- 10% of graduates who borrowed money from government student loan programs had paid off this debt within two years of graduating. Another 33% had not yet started repayment on these loans.
- For the 57% of graduates who borrowed money from government student loan programs and were in the process of repaying these loans, 71% reported they have 8 years or more left to entirely repay the loan.
- Those graduates who had paid off their government student loans attributed their success to having a high paying job (49%), 20% reported help from a parent or spouse and a further 20% reported they had made some kind of sacrifice or made their debt repayment a priority.
- 23% of graduates who borrowed money from financial institutions had paid off this debt within two years of graduating. Another 16% had not yet started repayment on these loans.
- For the 61% of graduates who borrowed money from financial institutions and were in the process of repaying these loans, 34% reported they have eight years or more left to entirely repay the loan.
- Those graduates who had paid off loans from financial institutions attributed their success to having a high paying job (50%), 14% reported help from a parent or spouse and a further 24% reported they had made some kind of sacrifice or made their debt repayment a priority.

Impact of Student Debt Load on Employed Graduates Economic Well-being

- Employed graduates pay an average of $336 per month to cover all student loan payments; this represents 13% of their monthly earnings. By comparison, the average debt-to-earnings ratio calculated for the Class of 1996 was 11% four years after graduation.
- While employed graduates earning higher incomes tend to pay more in monthly student loan payments than do graduates earning less, they have a smaller debt-to-earnings ratio.
- Graduates of certain fields of study have greater debt burdens than others: those who completed programs in the Humanities (17%) and Agricultural & Biological Sciences (17%) had the highest, and graduates of Engineering & Applied Sciences (9%) the lowest, debt-to-earnings ratios.

Graduate Outlook

Post-graduation successes have an important impact on graduates' perceptions of their jobs and their university experiences.

- The vast majority of graduates were satisfied with their level of education (80%); 66% were satisfied with their employment situation, and 46% were satisfied with their financial situation.
- Among the most likely to report being satisfied with their employment situation were graduates of First Professional programs (80%) and Engineering & Applied Sciences programs (78%); among the least likely to report satisfaction were graduates of Fine & Applied Arts (47%) programs.
- Among the most likely to report being satisfied with their financial situation were gradu-

ates of Master's/Doctoral programs (63%), Health Professions (61%), and Engineering & Applied Sciences programs (58%); among the least likely to report satisfaction were graduates of Fine & Applied Arts (23%).

- Those who were very satisfied with their job (88%), using their skills learned in their 1999 program to a great extent (86%) and who reported that their job was closely related to their field of study (86%) were the most likely to say that they were satisfied with their level of education. This compares to 65% of those who were very dissatisfied with their job, 71% who were not using their skills at all, and 69% whose job was not related.
- Graduates most satisfied with their employment and financial situations tended to have jobs closely related to their field of study and where they were putting their skills to use.

Conclusions and Implications

The analysis clearly shows that there are many interrelated factors influencing post-graduation work force experiences, financial status, the decision to return to further study and mobility. As a result, there is no single typical transition experience, but rather several.

Class of 1999 Core Divisions

The fundamental factors affecting program choice, and therefore the transition experience, are the core divisions of the Class. These divisions form along lines of gender, province of origin and educational background. First, women outnumber men among university enrolments and in the graduating class. This gender imbalance in enrolments and among graduates raises policy implications warranting further study. Second, a good proportion of graduates came to the Maritimes from outside the region to begin studies leading to their 1999 degree. In fact, the top three high school feeder provinces were Nova Scotia, New Brunswick and Ontario. Third, while for many graduates the 1999 degree was their first postsecondary credential, still others enrolled in their 1999 studies with at least some prior postsecondary education.

Present Performance Affects Perceptions

If, as seems to be the case, work force success (in terms of skill use/ job relatedness and wages) and a reasonable financial status are the yard sticks by which graduates measure the value of their education (including whether they would pursue same path) and even their general life situation, then it is clear that some groups of graduates are doing better than others.

This finding underpins the tremendous effect work force performance has on Maritime graduates' perceptions. Work force performance includes employment status and history, earnings, and elements of job quality, such as the extent of skills use, and the relatedness of the job to the program completed. The value graduates attach to their university education, their general outlook on life, and whether they would have chosen the same path over again really seems to depend on their relative successes in the labour market.

With respect to employment success, graduates tend to fall into two groups based on their field of study. The first group is made up of graduates who completed studies in more vocationally-oriented or applied programs: Mathematics & Physical Sciences, Engineering & Applied Sciences, Education, Commerce & Administration and Health Professions. The second group includes graduates who completed programs in Social Sciences, Humanities & Related, Agricultural & Biological Sciences and Fine & Applied Arts. While this division holds true for the most part, there are certain exceptions to the trend.

Graduates of the first group are more likely to be employed, to have a job closely related to their field of study, to be using the skills they learned in their 1999 program, and to earn more than graduates in the other group. They are also more likely than graduates of less-vocationally-oriented programs to

say that their educational program had helped them to find a job. Possibly as a result, graduates of the first group are more likely to say that they would choose the same field of study at university had they to do it over again, and less likely to say they returned to study since graduating in 1999.

These field of study-based trends also hold when only first degree holders are considered, therefore ruling out the potential effects of previous experience on work place performance.

What do we conclude from this? First, it is apparent that the more vocationally-oriented or applied in nature a program is, the more successful graduates will tend to be in the work force (e.g., quicker attachment to the labour market, finding more closely related employment), even when accounting for prior educational attainment and age at graduation. This is nothing new, and the only caution here for governments and institutions is to ensure that students are aware of all choices available to them. For those graduates of programs less strongly linked to the job market, providing career counseling designed to help them see how their skills can be generally applied would be useful.

On the other side of that same coin, information could be provided to potential employers to help them see how the skills of these graduates fit with workplace requirements. An awareness campaign designed to show that university graduates possess a suite of skills (including research and analytical skills, and critical thinking abilities) that can be molded to suit the needs of employers with further industry-specific training, might go a long way to improving the outcomes of graduates whose programs are less vocationally-oriented, or whose particular fields are not in demand.

Average Earnings Have Increased

Overall, graduates of the Class of 1999 earn more than their counterparts who graduated in 1996. Employed graduates earn on average $696 per week, or $36,192 annually. This is 20% more than graduates of the Class of 1996 (in 2001 constant dollars, the Class of 1999 earnings advantage was 13%). The overall success of the Class of 1999, however, hides earnings disparities based on field of study (discussed above), language and gender.

Graduates of more professionally-oriented fields (such as Engineering & Applied Sciences and Health Professions) earn significantly more than those who completed programs in fields such as Humanities and Agricultural & Biological Sciences. However, this survey was conducted just two years after graduation, and it may very well take non-vocational graduates longer to find their "footing" in the work world, with trips back to school to upgrade or to take programs with a direct link to the work force, hence the popularity of Education and Nursing, fields now in demand. Evidence from previous surveys does lend some encouragement for the lowest wage earners. A comparison of earnings of the Class of 1996 one and four years after graduation shows that even though the average monthly wages of graduates of the lowest-earning fields four years after graduating was less than the average monthly wages of graduates of the highest-earning fields just one year after graduating, the gap in earnings between these two groups did shrink over time. In 1997, graduates of Health Professions, Commerce & Administration, Engineering & Applied Sciences, Mathematics & Physical Sciences and Education earned 56% more than those who completed programs in Social Sciences, Fine & Applied Arts, Humanities and Agricultural & Biological Sciences; by 2000, this earnings advantage had shrunk to 48%.

Results show that while French-speaking graduates are more likely than English-speaking graduates to find related employment, they earned, on average, 89% of the wages of English-speaking graduates. At least some of the language gap in earnings can be accounted for with differences in the average number of full-time hours worked;

further study determining other factors involved is needed.

Another important survey finding is the continued existence of the gender gap in earnings. Among graduates working full-time, women earn $694 per week, or 85% of the earnings of their male counterparts, who made $812 per week. Similar results were recorded for the Class of 1996: one year after graduation, women working full-time earned 86% of men's wages. Four years later, this gap had widened somewhat, with women earning 82% of men's wages. At least part of this gap may be explained by differences in choice of field of study and the average number of full-time hours worked, but there are likely other factors influencing this wage gap. This is an important issue, and the Maritime Provinces Higher Education Commission has already identified it as one warranting further study.

Student Debt Has Increased

Trends in student debt are an important public policy concern. Partly as a result of policy changes to government student loan programs, and also increases in the cost of education over time, 1999 graduates have borrowed significantly more than their predecessors. To finance their 1999 program, graduates borrowed $20,918 on average, nearly $5,000 more than the Class of 1996. Borrowing in the high range has also gone up considerably from the previous cohort, with over one-quarter (27%) saying they had borrowed $30,000 or more (compared to 12% of borrowers in the Class of 1996). At the time of the interview, 1999 graduates owed on average $16,462 on these loans.

And, even though borrowing has increased, graduates were able to reduce their debt by 22% over two years, and 79% reported that they had always been able to make their payments on time. Those who did have difficulty repaying their loans tended to give reasons related to insufficient or irregular income.

The findings show that graduates spent an average of 13% of their earnings on paying down their student loans, up slightly from the Class of 1996 (who paid 11%). Again, we find that certain groups of graduates carry a higher debt burden than others. Graduates earning top wages can pay more on their debt each month than can graduates earning the lowest wages, and still have a lighter debt burden. One wonders what sacrifices graduates with higher debt-to-earnings ratios are making in order to manage their student debt payments. Given the observed increases in the overall proportion of graduates who borrowed, and the average amount borrowed, the trends in student borrowing must continue to be monitored to ensure loan programs continue to be a useful instrument in the funding of university education.

Furthermore, it is abundantly clear that the dialogue on student debt cannot take place without considering the relative impact of income on a graduate's ability to pay. In this context, it may be useful to design programs to teach students money management skills and to help students to clearly understand the long term impact of borrowing money to subsidize their education. Responsibility for debt lies largely with the student, but the provision of targeted information by lending agencies and/or institutions might go a long way to helping students and graduates cope with their debt.

There is no doubt that the journey to becoming free of student debt will be a long one for many graduates, but given their tendency to think their education had been worth the financial investment, it is clear that most realize the advantage they have gained by completing a university education.

Mobility

Perhaps among the greatest concerns of governments in the region is the stability and quality of their pool of highly skilled personnel - an important asset in attracting and retaining businesses and industries. The findings of this survey show that the flow of university graduates originally from the

region has stepped up by 9 percentage points from the previous cohort.

Net outflow from the region now stands at 15%, pointing to the fact that not only are graduates originally from the Maritimes leaving, but that they are not being replaced by a retention of graduates originally from outside the region. In addition, this value is very close to the 14% net outflow calculated for the Class of 1996 *four years* after graduating, lending support to the fact that the class of 1999 seems to be leaving the region in greater numbers than the Class of 1996. A longitudinal survey of the Class of 1999 four or five years after graduating would indicate whether the same proportion is leaving, but sooner, or whether their exodus has in fact reached a new level.

There are two factors that may have a negative impact on current rates of retention: one that can affect existing cohorts of graduates, and one that can affect future graduating classes.

The first factor can be described as the latent potential of graduates originally from the region, and still living in the Maritimes, to move out of the region. Graduates were asked a series of questions about their willingness to move if they were "offered a better job". In response to these questions, 42% said they would be willing to move to another part of Canada, and 29% said they would be willing to move to another country.

The second factor is the predicted overall increased influx of students into the Maritimes from provinces outside the region, resulting from the predicted longer-term population surge in the typical university-aged population, an increasing demand for university education in many provinces across Canada, as well as the short-term effects of Ontario's double cohort.

Although the effect of the double cohort on Maritime university enrolments and its potential impact on mobility patterns of subsequent graduating classes would be a relatively isolated event, the predicted population surge in the typical university-aged population as well as an increasing demand for university education in many provinces across Canada may result in an overall increased influx of students into the Maritimes from provinces outside the region.

It would not be unreasonable to predict, then, that over the coming decade, the net proportion of Maritime university graduates leaving the region will likely increase. This prediction depends on a *relative* increase in students from outside the region enrolling in, and graduating from, Maritime universities. It also depends on a continuation of the current pattern of graduates originally from outside the region leaving the Maritimes in large proportion following graduation.

The net loss of Maritime university graduates from the region is already an important public policy issue; it is likely to warrant even greater attention over the coming decade. Graduate mobility will continue to be monitored in future MPHEC surveys.

Summary

The findings presented here clearly show that the Class of 1999 is a diverse group in many respects, and this is reflected in the nature of the transition experience. For some graduates, their university education resulted in early pay-off; yet for others we see results of a continuing struggle to get established in the work-force - lower earnings and decreased likelihood that they are using their skills or have a job closely related to their studies, all resulting in less job satisfaction. These graduates were more likely to return to study to increase their chances of success in the workforce.

It would be useful to follow the outcomes of these different groups to see whether or not the less successful graduates will catch up to their more successful peers over time, or whether the choice of program has a more long-term effect.

INTRODUCTION

In 2001, the Maritime Provinces Higher Education Commission (MPHEC), in partnership with the governments of New Brunswick, Nova Scotia and Prince Edward Island, commissioned a survey of 1999 Maritime university graduates. This survey is the fourth in the Commission's survey program, and follows the same primary objective as the previous surveys: to discover the nature of the transition 1999 Maritime university graduates have experienced between the learning force and the work force, and back again, taking into consideration their experience prior to enrolling in the program they graduated from in 1999.

To fully characterize the transition, the survey examined several important elements:

- labour force activities
- progress in repaying debt incurred to finance pre-1999 and post-1999 studies
- current overall financial status, including earnings, overall debt load from their studies, and the impact of debt on their personal lives
- post-1999 educational experiences
- mobility
- evaluation of their pre-1999 university experience
- outlook on their personal lives

Baseline Market Research conducted the interviews and prepared the datafile. Data analysis and preparation of this report was carried out by the MPHEC under the direction of a Working Group. Members are listed on the front inside cover page.

METHODOLOGY

Baseline Market Research conducted a telephone survey of graduates of the class of 1999. Only graduates of Maritime degree-granting institutions were surveyed. Between May and July, 2001, a total of 4,204 interviews were completed.

The margin of error for findings from this sample of 4,204 is ± 1.5%, 19 times out of 20. This means we can be 95% confident that results from this study will fall within plus or minus 1.5 percentage points of what they would be had we sampled the entire class of 1999 population. The table below shows the distribution of the final sample by province and institution.

Distribution by Participating Institutions of the Class of 1999

	Population: all graduates Class of 1999		unweighted sample		weighted sample	
	n	percent of population	n	percent of sample	n	percent of sample
Institution						
Acadia University	589	4.9%	200	4.8%	206	4.9%
Atlantic School of Theology	21	0.2%	8	0.2%	8	0.2%
Dalhousie University	2,909	24.0%	875	20.8%	1,010	24.0%
Mount Allison University	468	3.9%	175	4.2%	164	3.9%
Mount Saint Vincent University	848	7.0%	303	7.2%	294	7.0%
Nova Scotia Agricultural College	216	1.8%	80	1.9%	76	1.8%
Nova Scotia College of Art and Design	154	1.3%	50	1.2%	55	1.3%
Saint Mary's University	818	6.8%	301	7.2%	281	6.7%
St. Francis Xavier University	868	7.2%	301	7.2%	301	7.2%
St. Thomas University	430	3.6%	150	3.6%	147	3.5%
Université de Moncton	1,126	9.3%	370	8.8%	396	9.4%
Université Sainte-Anne	43	0.4%	25	0.6%	25	0.6%
University College of Cape Breton	741	6.1%	198	4.8%	254	6.0%
University of King's College	192	1.6%	75	1.8%	69	1.6%
University of New Brunswick	2,158	17.8%	769	18.3%	737	17.5%
University of Prince Edward Island	526	4.3%	324	7.7%	180	4.3%
Total	**12,107**	**100.0%**	**4,204**	**100.3%**	**4,202**	**99.9%**

The survey was designed so that 14 institutions were represented through a proportionately allocated, randomly selected sample of graduates based on a fixed sample size of approximately 30% of all graduates. The small size of the graduating class resulted in an attempted census for Université Sainte-Anne and Atlantic School of Theology. A census was also attempted for the University of Prince Edward Island.

The survey questionnaire was pre-tested to ensure respondents had no problems with any of the questions, to verify that the questionnaire script worked in the intended manner (i.e., skip patterns), and to test questionnaire length.

The questionnaire response rate for valid contact numbers was 61.5% overall.

Statistical Analysis

In all cases, the confidence level determining significance was set at 95%. All statistics presented have been generated from weighted data.

Ratio/Continuous data

Main effects were tested using one-way ANOVA (SPSS version 10.0). Differences between groups were tested using the Student-Neuman-Keuls test. In the tables, the results of testing between groups are illustrated using letters: within each group, categories with the same letter are not significantly different.

For example, from the table below, we can conclude that there is a strong relationship between earnings and average age. Statistical testing shows that the mean age of those earning $500 or less is significantly less than those earning $501-$700, and that this group is in turn significantly younger than those earning $701-$900. And, while the average age of those earning $701-$900 is significantly less than those earning more than $1,250, there is no significant difference in the average age of the top two earnings categories ($901-$1,250 and more than $1,250).

Relationship between Weekly Earnings and Age at University Enrolment

Range of Weekly Earnings	Average Age
$500 or less	20 d
$501 - $700	21 c
$701 - $900	23 b
$901- $1,250	27 a
more than $1,250	27 a

Within each group, categories with the same letter are not significantly different.

Ordinal/Categorical data

Differences in proportions were tested using Chi-Square (SPSS version 10.0). Notable differences were detected using adjusted standardized residuals.

How to Read the Tables

To help the reader interpret the statistics presented in the tables, we have included the number of respondents included in the base sample, or "universe". Depending on the constraints of page space, tables are oriented in one of two ways. If the base size appears beside a given category in the left column of the table (Sample Table A), all proportions should be read from left to right, with the percentages adding to 100% (unless "don't know" and "refused" responses are excluded from analysis, or statistical rounding results in a total slightly above or below 100%).

Sample Table A
Language spoken most often at home

	English	French	English & French	Other
FEMALE (2,489)	87%	10%	1%	1%
MALE (1,708)	88%	9%	1%	2%

When the base size appears underneath a category on the top of the table (Sample Table B), all proportions should be read from top to bottom, with the percentages adding to 100% (unless "don't know" and "refused" responses are excluded from analysis, or statistical rounding results in a total slightly above or below 100%).

Bold print is used in the tables to highlight certain findings and does not necessarily denote a significant finding.

Sample Table B

Language spoken most often at home

	FEMALE (2,489)	MALE (1,708)
English	87%	88%
French	10%	9%
English & French	1%	1%
Other	1%	2%

Unless otherwise specified, in cases where percentages do not total 100, the "don't know" and "refused" responses have not been included in findings.

Analytical Categories

A break down of the broad-level major field of study and degree level categories may be found under Appendix 1. The reader should especially take note of the fact that the Information Technology category is not a completely separate category, but rather a composite of majors taken from other broad-level categories, and therefore overlaps with them (see Appendix 1).

1. THE CLASS OF 1999

Demographic Profile

The demographic profile of graduates of the Class of 1999 may be found in Table 1.1. Because findings from this survey will often be compared to the Class of 1996 (MPHEC), the demographic profile of these surveys is included in the table for information. It should be noted here that the MPHEC surveyed members of the Class of 1996 twice, one year after graduation (1997) and four years after graduation (2000). The profile of each cohort is included in the table.

Table 1.1

Socio-demographic Profile at Time of Interview						
	Class of 1999 in 2001		Class of 1996 in 1997		Class of 1996 in 2000[2]	
	percent of total sample (4,202)	n	percent of Maritime[1] sample (4,124)	n	percent of total sample (2,380)	n
Gender						
Male	41%	1,707	37%	1,505	34%	809
Female	59%	2,495	64%	2,619	66%	1,571
Province of Graduation						
PEI	4%	180	4%	172	4%	99
NS	61%	2,579	61%	2,506	61%	1,446
NB	34%	1,444	35%	1,447	35%	835
Age at Graduation						
19 - 22	29%	1,208	30%	1,238	30%	719
23 - 24	30%	1,244	28%	1,157	27%	639
25 - 29	22%	909	20%	830	19%	461
30 - 39	11%	454	11%	449	11%	268
40 - 49	7%	300	7%	302	9%	206
50 +	2%	82	3%	114	3%	75
Marital Status						
Married	26%	1,087	28%	1,167	48%	1,147
Living with partner	11%	463				
Single	60%	2,519	69%	2,837	49%	1,161
Separated/ divorced/widowed	3%	118	3%	110	3%	71
Dependent children?						
Yes	17%	709	16%	661	24%	573
Language spoken most often at home						
English	87%	3,665	87%	3,589	88%	2,091
French	10%	409	10%	405	11%	253
French/English	1%	54	2%	70	1%	17
Other	2%	69	1%	59	1%	19
Visible Minority?						
Yes	5%	190	n/a		n/a	
Member of First Nations or Aboriginal						
Yes	1%	56	n/a		2%	55
Any Limitations on Activities?						
Yes	3%	123	n/a		2%	51

percentages may not sum to 100 due to non-response

[1]The original Class of 1996 survey included graduates of Newfoundland institutions. These graduates have been excluded from this analysis
[2]The Survey of the Class of 1996 in 2000 included only graduates of Maritime universities
n/a: question not asked in survey

Table 1.1 illustrates that, from a sociodemographic perspective, the sample populations are very similar with respect to age at graduation, language spoken most often at home, the proportion who reported they were aboriginal/member of first nations and the proportion who reported limitations on activity due to a mental or physical disability. There are slight differences among the samples with respect to the ratio of women to men. The proportion of 1999 respondents who reported having dependent children at the time of interview is quite similar one (Class of 1996) and two (Class of 1999) years after graduation. This proportion is greater, as expected, four years after graduation (Class of 1996). The proportion of graduates who were married or living with a partner also depends on the time elapsed since graduating - it is lowest among those interviewed after one year and highest among those interviewed after four years.

Prior Education

Institutions in the Maritimes offer a variety of degree programs at all levels of study. The first objective of this analysis was to determine the level of education graduates had achieved before enrolling in the program leading to the 1999 degree. Prior education level not only determines a person's qualifications for subsequent education and training, it is also a critical factor when comparing graduates' performance in the labour market, accumulation of debt and post-graduation studies.

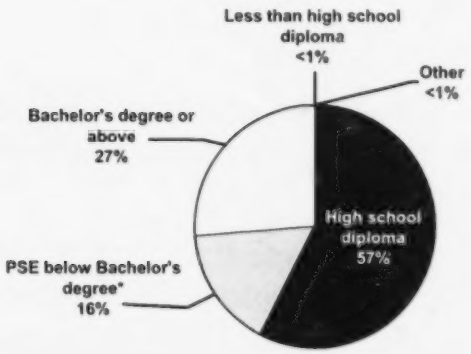
Figure 1.1 shows the distribution of the Class of 1999 by highest level of education completed before enrolling in programs leading to the 1999 degree.

Figure 1.1

Level of Prior Education

"Before you enrolled in your university program, what was the highest level of education you had completed?"

(n = 4,202)


Less than high school diploma <1%
Other <1%
Bachelor's degree or above 27%
High school diploma 57%
PSE below Bachelor's degree* 16%

*PSE (postsecondary education) below Bachelor's degree includes trades (5%), community college (25%), hospital-based programs (5%), university attendance (incomplete/no degree specified (52%) or university diploma/certificate below Bachelor's level (13%).

While a little over half (57%) of respondents reported a high school diploma as their prior level of educational attainment, the remaining 43% enrolled in their program already having had some level of postsecondary education. In fact, nearly a third of all graduates had already obtained at least a Bachelor's degree.

Because of the very different sorts of prior experiences (e.g., education, employment, mobility) and situations (e.g., financial) these groups of graduates have, comparisons of findings throughout this report will include a focus on these three groups.[1]

Looking at the socio-demographic profile by prior level of education (Table 1.2), we can see some striking differences.

Table 1.2

Socio-demographic Profile by Education Attainment Prior to Enrolling

	High school diploma (2,410)	PSE below Bachelor's degree (674)	Bachelor's degree or above (1,113)	All Graduates (4,202)
Gender				
Male	44%	34%	37%	41%
Female	56%	**66%**	63%	59%
Province of Graduation				
PEI	5%	3%	4%	4%
NS	57%	62%	**70%**	61%
NB	38%	35%	26%	34%
Age at Enrolment				
18 & under	**64%**	2%	0%	29%
19 - 21	29%	**45%**	3%	30%
22 - 29	4%	33%	**60%**	22%
30 - 39	2%	13%	20%	11%
40 - 49	1%	5%	13%	7%
50 +	1%	3%	4%	2%
Average age at enrolment				
	19	25	29	23
Marital Status				
Married	14%	32%	**49%**	26%
Living with partner	12%	13%	8%	11%
Never married	**73%**	**49%**	39%	60%
Separated/ divorced/widowed	1%	7%	4%	3%
Dependent children?				
Yes	8%	25%	31%	17%
Language spoken most often at home				
English	87%	85%	90%	87%
French	11%	13%	6%	10%
French/English	1%	2%	1%	1%
Other	1%	<1%	3%	2%

[1]The three groups based on prior level of education exclude 5 respondents; 2 with less than high school, and 3 who reported a prior level of education of "other".

The proportion of respondents who are female is significantly greater among those who had prior postsecondary education than among those who did not.

Respondents who reported a prior level of education of Bachelor's degree or above were significantly more likely than those in the other two groups to have studied in Nova Scotia. Given the increased likelihood of these respondents having completed a program above the Bachelor's level, this finding may reflect the greater availability of advanced level programs in Nova Scotia.

As the level of prior education increased, so did the average age of the respondent. The mean ages of the three groups were significantly different from one another. While 64% of those with no prior postsecondary education were 18 or under when they enrolled in the program leading to the 1999 degree, nearly 60% of those who enrolled with at least a Bachelor's degree were between 22 and 29 when they enrolled.

Not surprisingly, then, those with prior postsecondary education (i.e., older graduates) were more likely to be married or living with a partner and to have reported having at least one dependent child than those who have no postsecondary education.

There is no significant difference between the groups with respect to language spoken most often at home.

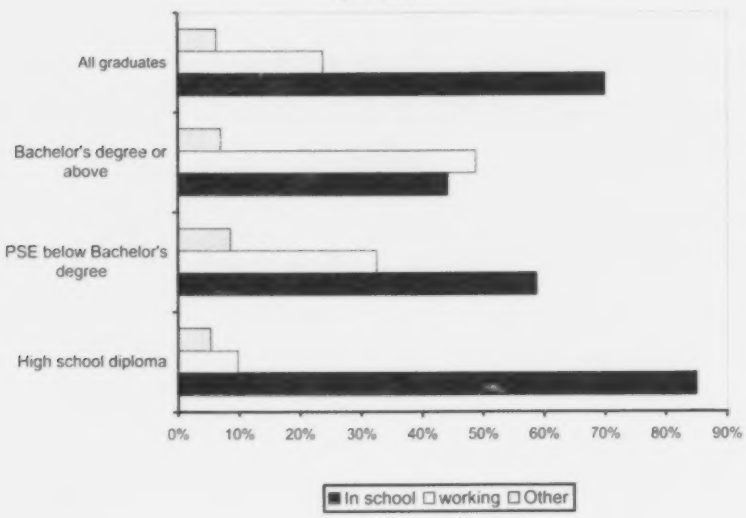
Activity Prior to Enrolling in 1999 Program

How graduates were spending their time in the 12 months prior to enrolling in their 1999 program varied with prior educational attainment (Figure 1.2), with high school graduates by far the most likely to report being in school (85%). Those with a prior Bachelor's degree or above were nearly equally as likely to report being in school (44%) as working (49%), while those with postsecondary education below the Bachelor's level were more likely (59%) to say they were in school than working (33%).

Figure 1.2

During the 12 months before you enrolled, what was your major activity?

(n = 4,202)

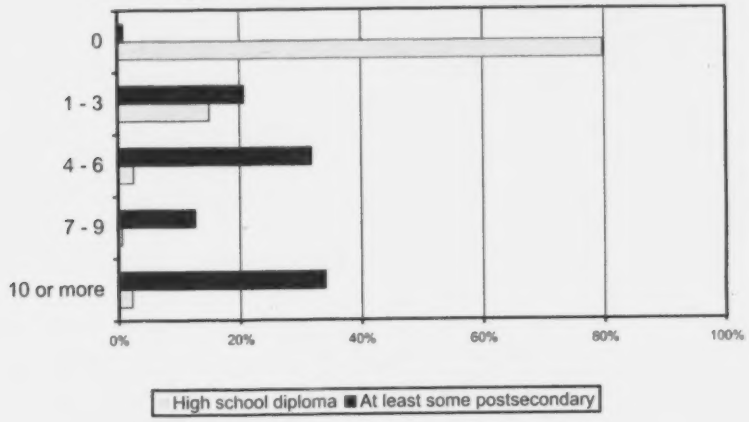


Those graduates who enrolled in their 1999 program with a high school diploma tended to lose little time in beginning their university studies: 80% did so within one year of completing their high school diploma and a further 15% enrolled after one to three years (Figure 1.3).

There is no significant difference among the three provinces (province of residence 12 months prior to enrolling) in the number of years between high school graduation and enrolling in studies, for those graduates who entered with a high school diploma.

Figure 1.3

Years Between High School Graduation and Enrolling in Program Leading to the 1999 Degree



By contrast, over one-third of those with some prior postsecondary education (i.e., PSE below the Bachelor's level, and Bachelor's degree or above) had graduated from high school at least ten years earlier; for nearly half (45%) of this group, four to nine years had elapsed. The amount of time between high school graduation and beginning postsecondary education for the *first* time for this group is beyond the scope of the survey.

Geographic Origin of Graduates

Table 1.3 shows the distribution of graduates by the province or country in which they obtained their high school diploma.

Table 1.3

Province/Country of High School Graduation	percent of total sample (4,202)
Nova Scotia	43%
New Brunswick	29%
Ontario	8%
Newfoundland and Labrador	7%
Prince Edward Island	5%
Other Country (excluding U.S.)	2%
Quebec	2%
British Columbia	1%
Alberta	1%
United States	1%
Manitoba	1%
Saskatchewan	< 1%

The vast majority (77%) of all graduates obtained their high school diploma from a Maritime high school. However, it is interesting to note that while Nova Scotia (43%) and New Brunswick (29%) together comprise the bulk of feeder provinces, Ontario (8%) and Newfoundland and Labrador (7%) rank ahead of Prince Edward Island, whose high schools provided 5% of 1999 graduates. While province of high school graduation was not collected for Class of 1996 graduates, we can compare the two cohorts based on province of residence 12 months prior to enrolling. In this case, 8% of 1999 graduates were living in Ontario 12 months before enrolling, up slightly from the previous cohort (Class of 1996), where 6% of graduates were living in Ontario prior to enrolling.

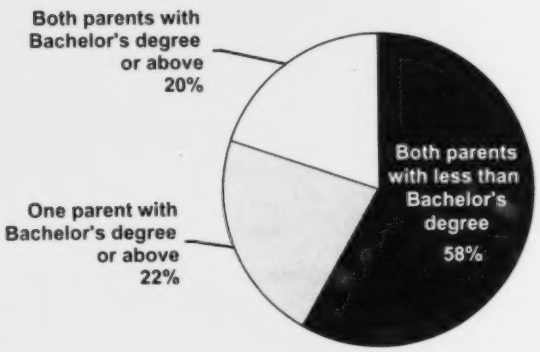
There are differences according to prior level of education: 84% of those with no prior postsecondary education were more likely than those with prior postsecondary education (68% of those with prior postsecondary education below a Bachelor's and 70% of those with a prior Bachelor's degree or greater) to have reported obtaining their high school diploma in the region.

Parents Level of Education

Findings show that, for many graduates, having parents who completed at least a Bachelor's degree was not an important determinant of their own decision to attend and complete university: well over half (58%) of Maritime graduates reported that their parents' combined level of education was below the Bachelor's level (Figure 1.4).

Figure 1.4

Parents' Combined Level of Education
(n= 4,038)


Both parents with Bachelor's degree or above 20%
Both parents with less than Bachelor's degree 58%
One parent with Bachelor's degree or above 22%

There is a significant difference by province (residence 12 months prior to enrolling) in the distribution of parents' combined level of education. While graduates originally from Prince Edward Island and Nova Scotia followed the overall distribution, graduates originally from New Brunswick were somewhat less likely to report that both parents had a Bachelor's degree or above (15%), and more likely to report that both parents had less than a Bachelor's degree (64%). Respondents who were living outside the region 12 months prior to enrolment were much more likely to say that both parents had a Bachelor's degree or above (27%) and less likely to say that both parents had less than a Bachelor's degree (49%).

Findings also showed a significant difference by gender. Women (61%) were more likely than men (54%) to have reported that their parents' combined level of education was less than a Bachelor's degree. Twenty-one percent of women and 24% of men said they had one parent with a Bachelor's degree or above; 18% of women and 22% of men reported both their parents' level of education was at the Bachelor's level or above. While accessibility to university for those from lower socioeconomic levels seems to depend at least to some extent on gender, it is important to note that *over half* of male Maritime university graduates reported that both parents' combined level of education was below the Bachelor's level.

2. THE 1999 PROGRAM OF STUDY

2.1 Reason For Enrolling

When asked about their reasons for enrolling in the program leading to the 1999 degree, the majority of graduates said it was important or very important to have a chance at a good income (92%), to acquire in-depth knowledge of a particular field (93%), and to acquire skills for a particular job (86%) (Table 2.1). Although very few (1%) said it was not at all important to gain knowledge of a field or increase their odds of a good income, slightly more (4%) did not think it was at all important to acquire skills for a job.

Table 2.1

When you enrolled in your program, how important was it for you to...	Acquire skills for a particular job? (n=4,202)	Acquire in-depth knowledge of a field? (n=4,202)	Have a chance at a good income? (n=4,202)
Very Important	56%	58%	58%
Important	30%	35%	34%
Not Very Important	11%	6%	7%
Not at all important	4%	1%	1%

Exploring further, we find that the importance placed on these three factors when first enrolled in the 1999 program varied significantly with gender, and that these differences tended to occur at the high end of the scale (i.e., the proportion reporting "very important") (Table 2.2). Women were somewhat more likely than men to attach a high degree of importance to acquiring skills for a particular job (59% vs. 51%), acquiring in-depth knowledge of a field of study (61% *vs.* 53%) and to have a chance at a good income (60% *vs.* 55%).

Province of residence 12 months prior to enrolment had no effect on responses to these questions, with the exception of those originally from outside the region, who were somewhat less likely to agree that having a chance at a good income was very important, and graduates originally from New Brunswick, who were more likely to report acquiring skills for a particular job was very important.

Similarly, a graduate's educational background, whether the graduate's own, or their parents', also had a significant impact on the reason for enrolling. Level of education is a well-known indicator of socioeconomic status: higher education generally correlates with higher income. The most importance was attached to acquiring job skills (58%), in-depth knowledge (60%), and increased income (61%) by those whose parents' combined level of education was below the Bachelor's level, suggesting a desire on the part of these graduates to do better than their parents. Graduates with both parents having education at the Bachelor's level or above were less likely to say these factors were very important (Table 2.2).

Those who enrolled in their 1999 program with a high school diploma did not rate the importance of acquiring skills for a particular job (50% rated it very important) or acquiring in-depth knowledge of a field of study (53%) as highly as their counterparts who had at least some prior postsecondary education, lagging behind by as much as 9-12 percentage points.

Table 2.2

When you enrolled in your program, how important was it for you to...

	weighted base	Acquire skills for a particular job % saying it was very important	Acquire in-depth knowledge of a field of study % saying it was very important	To have a chance at a good income % saying it was very important
Gender				
Female	2,495	**59%**	**61%**	**60%**
Male	1,708	51%	53%	55%
Residence 12 months prior to enrolment				
PEI	205	51%	53%	56%
NS	1,924	55%	58%	59%
NB	1,233	**60%**	60%	61%
outside Maritimes	839	51%	56%	**52%**
Prior Level of Education				
High school diploma	2,410	**50%**	**53%**	58%
PSE below Bachelor's degree	674	62%	62%	**63%**
Bachelor's degree or above	1,113	64%	66%	55%
Level of Parents' Education				
Less than a Bachelor's degree	2,356	**58%**	**60%**	**61%**
One parent with Bachelor's degree or above	888	54%	55%	56%
Both parents Bachelor's degree or above	793	50%	54%	52%

2.2 Factors Affecting Choice of the 1999 Program

Prior Education

Choosing which program to take is influenced by a variety of factors, not the least of which is prior educational attainment. Table 2.3 provides the 1999 education profile by prior educational attainment.

Table 2.3

Education Profile by Educational Attainment Prior to Enrolling

	High school diploma (2,410)	PSE below Bachelor's degree (674)	Bachelor's degree or above (1,113)	All Graduates (4,202)
Degree Level				
Bachelor's degree	**95%**	**86%**	34%	**77%**
First Professional		3%	11%	4%
Master's/Doctorate		2%	**46%**	13%
Diploma/Certificate	5%	9%	8%	7%
Major Field of Study				
General Arts & Science	1%			1%
Education	6%	9%	**37%**	15%
Fine & Applied Arts	2%	6%	2%	3%
Humanities	13%	8%	7%	11%
Social Sciences	**25%**	18%	16%	**21%**
Commerce & Administration	17%	**20%**	11%	16%
Agricultural & Biological Sciences	15%	6%	5%	11%
Engineering & Applied Sciences	8%	10%	6%	8%
Health Professions	5%	18%	12%	9%
Mathematics & Physical Sciences	9%	5%	6%	7%
Information Technology	6%	6%	5%	5%

As expected, the distribution of graduates by degree level closely correlates with their prior level of education: those with no postsecondary education were most likely (95%) to have obtained a Bachelor's degree in 1999, followed by 86% of those with postsecondary education below a Bachelor's. Nearly half (46%) of those with a prior university degree (Bachelor's degree or above) obtained a graduate degree.

Graduates who enrolled with a high school diploma were most likely (25%) to have followed a program in the Social Sciences; those who enrolled with postsecondary education below a Bachelor's, however, were relatively equally likely to have followed programs in the Social Sciences (18%), Commerce & Administration (20%), or the Health Professions (18%).

Graduates with prior education at the Bachelor's level or above were most likely to have chosen to study in the field of Education (37%). Exploring further, of the 34% with a prior Bachelor's degree who obtained a subsequent Bachelor's degree in 1999, over half (52%) studied in the field of Education. In the Maritimes, admittance into a Bachelor of Education program requires either a prior Bachelor's degree (Nova Scotia, New Brunswick and Prince Edward Island), or that the student enrol concurrently in a second Bachelor's degree (New Brunswick).

Gender

Women outnumber men in university enrolments and among university graduates. However, this is not the case among all fields of study, and the findings show that women made significantly different choices from men (Table 2.4).

Table 2.4

Education Profile by Gender

	Females (2,495)	Males (1,707)	All Graduates (4,202)
Field of Study			
General Arts & Science	1%	1%	1%
Education	17%	11%	15%
Fine & Applied Arts	3%	2%	3%
Humanities	11%	9%	11%
Social Sciences	**25%**	17%	21%
Commerce & Administration	12%	**21%**	16%
Agricultural & Biological Sciences	12%	9%	11%
Engineering & Applied Sciences	**3%**	**14%**	8%
Health Professions	12%	4%	9%
Mathematics & Physical Sciences	**4%**	**13%**	7%
Information Technology	1%	12%	5%

The top choice for 1999 female graduates was Social Sciences (25%), followed by Education (17%). After these two fields, women were equally likely (12%) to choose among Commerce & Administration, Agricultural & Biological Sciences and Health Professions. Among the least popular choices were Mathematics & Physical Sciences (4%) and Engineering & Applied Sciences (3%).

Among male graduates, the top field choice was Commerce & Administration (21%), followed by Social Sciences (17%). The next two most popular choices were Engineering & Applied Sciences (14%) and Mathematics & Physical Sciences (13%).

On the bottom of the list for all graduates, regardless of gender, were Fine & Applied Arts (2-3%) and General Arts & Science (1%).

There was no difference between male and female graduates with respect to their choice of program level.

Province of High School

Where a graduate went to high school had a significant effect on the distribution of degree level, especially for those who came from outside the region (Table 2.5). While no more than 11% of those who went to high school in the Maritimes completed a Diploma/Certificate, nearly one-quarter (24%) of those from outside the region chose to study at this level. Graduates of Prince Edward Island high schools were the least likely to have completed a Diploma or Certificate, perhaps reflecting the availability of programs at this level in that province. The proportion completing Bachelor's degrees did not differ significantly between the Maritime provinces.

Table 2.5

Education Profile by Province of High School Graduation

	PEI (216)	NS (1,810)	NB (1,229)	Outside Maritimes (942)	All Graduates (4,202)
Degree Level					
Bachelor's degree	84%	79%	80%	**68%**	77%
First Professional	4%	3%	4%	4%	4%
Master's/Doctorate	8%	7%	7%	4%	13%
Diploma/Certificate	4%	**11%**	9%	**24%**	7%

By comparison, the province in which a graduate completed high school had little influence on field of study; some notable exceptions are that Nova Scotian high school graduates were somewhat more likely than those from New Brunswick to have taken a program in Mathematics & Physical Sciences. In addition, those from outside the region were somewhat more likely to have taken a program in the Fine & Applied Arts.

Parents' Level of Education

Having parents with a combined level of education at the Bachelor's level or greater increased the likelihood that a graduate pursued studies in Agricultural & Biological Sciences, Mathematics & Physical Sciences, and Fine & Applied Arts. These graduates were also less likely to study at the Diploma/Certificate level. Graduates whose parents' combined level of education was below the Bachelor's level were least likely to have chosen Fine & Applied Arts programs, but were more likely to have chosen a program in the Health Professions, specifically Nursing. They were also more likely to have studied at the Diploma/Certificate level.

Relationship Between Degree Level and Field of Study

Table 2.6 shows the distribution of graduates within each degree level, by major field of study, and reflects program availability within each level.

Table 2.6

Education Profile by Degree Level

	Bachelor's (3,250)	First Professional (147)	Diploma/ Certificate (272)	Master's/ Doctoral (534)	All Graduates (4,202)
Major Field of Study					
General Arts & Science	1%				1%
Education	12%		15%	**35%**	15%
Fine & Applied Arts	3%		3%	>1%	3%
Humanities	12%	9%	1%	8%	11%
Social Sciences	**23%**	**42%**	10%	9%	21%
Commerce & Administration	15%		**24%**	**19%**	16%
Agricultural & Biological Sciences	12%	8%	8%	5%	11%
Engineering & Applied Sciences	7%		**21%**	8%	8%
Health Professions	7%	41%	14%	9%	9%
Mathematics & Physical Sciences	8%		3%	8%	7%
Information Technology	6%		4%	7%	5%

Programs in the Social Sciences were most popular among those who studied at the Bachelor's (23%) and First Professional (42%) level. Study at the Diploma/Certificate level occurred most often in Commerce & Administration (24%) and Engineering & Applied Sciences (21%) programs. It should be noted that students can complete the preliminary years of study in Engineering at certain feeder institutions, earning a Diploma before going on to complete a Bachelor level Engineering degree at a university offering the full five-year program.

Choice of field of study at the Master's and Doctoral level appears to be largely driven by labour market demands, with graduates most likely to have completed a program in Education (35%) or Commerce & Administration (19%). For example, teachers earning advanced degrees (e.g., M.Ed.) are normally rewarded with higher salaries. In addition, graduates of MBA programs, making up the bulk of those falling under the Commerce & Administration category, reported average weekly earnings nearly double the average weekly wage of all employed graduates. At least some of this earnings advantage over the class as a whole may be accounted for by higher earnings associated with an advanced degree and older graduates with prior work experience.

2.3 Program Characteristics

Graduates were asked a series of questions about the characteristics of the program of study they followed, such as registration status (full- or part-time), whether or not they had had any work placements, and whether or not they had completed their studies in a normal amount of time. As the interest was in establishing a complete picture of the university experience, graduates were also asked about their employment patterns while studying. The previous chapter clearly shows that the Class of 1999 is made

up of a diverse group of graduates, distinguished primarily by the level and field of study, and also by the level of education attained prior to enrolling in studies leading to the 1999 degree. It is not surprising, then, to find differences in the characteristics of the 1999 program among the different groups of graduates. Table 2.7 highlights these differences.

Table 2.7

1999 Program Characteristics

	Prior Level of Education			All Graduates (4,202)
	High school diploma (2,410)	PSE below Bachelor's degree (674)	Bachelor's degree or above (1,113)	
Type of Study				
Full-time	**83%**	71%	66%	77%
Part-time	2%	14%	**23%**	9%
Combined	15%	15%	12%	14%
Leave of Absence				
Yes	12%	12%	**7%**	10%
Program Completed in a...				
Normal amount of time	**70%**	60%	68%	68%
Longer amount of time	**26%**	24%	14%	22%
Shorter amount of time	4%	17%	**18%**	10%
Work Placements During Program?				
Yes	19%	34%	**43%**	28%
Full-time Employment During School Year?				
Yes	14%	24%	**33%**	21%
Part-time Employment During School Year?				
Yes	**67%**	55%	44%	59%
Summer Employment During Program?				
Yes	**97%**	88%	72%	89%

Registration Status

While just over three-quarters of all graduates reported having followed their program of study on a full-time basis, an increasing level of prior education reduced the likelihood that a graduate studied full-time. Based on level of education prior to enrolling, those who had a Bachelor's degree or above were most likely (23%) to have studied on a part-time basis.

The top three reasons given by graduates for not studying exclusively full-time (n=987) included "had a full-time job" (47%), "lack of money" (14%) and "only needed a few credits" (13%). A graduate's level of prior education seems to influence their reasons for pursuing their studies part-time or combined full- and part-time: over two-thirds (67%) of those whose prior level of education was a Bachelor's degree or above reported "had a full-time job". However, just one- quarter (25%) of those with no prior postsecondary education gave this reason; these graduates were almost as likely to report "only needed a few credits" (20%) or "lacked the money" (18%).

About 10% of graduates said they had taken a leave of absence at some point during their studies. Again, a graduate's prior level of education seems to be an influencing factor. Significantly fewer (7%) of those who had attained a Bachelor's degree or above reported having taken a leave of absence, as compared to the

other two groups (high school diploma - 12% and postsecondary below Bachelor's - 12%). This pattern remains the same if we consider only those who completed a Bachelor's degree in 1999.

Study format also had an influence on whether a graduate had reporting taking a leave of absence. While just 7% of those who studied full-time and 12% of those who studied part-time took a leave of absence, almost one-third (30%) of those who reported a combined full- and part-time study format did the same. This significant difference might suggest that taking a leave of absence results in a change of study format once the student returns to school.

The top reason reported for taking a leave of absence is the same as that given for not studying full-time exclusively: 27% reported it was due to having a full-time job. A variety of other reasons were given, including academic probation, unsure of goals, and lack of money.

Work Placements and Employment While Enrolled

The type of employment (full- or part-time) held while enrolled in studies leading to the 1999 degree was related to the type of study. Those who studied exclusively full-time were much less likely (9%) to say they had worked full-time than those who studied exclusively part-time (84%) or combined full- and part-time (41%). Given the top reasons reported for not studying exclusively full-time, these findings are not surprising.

Respondents were asked whether or not their program had included any work placements. These could include co-op education work terms which are normally paid but can also be unpaid, practicums (normally unpaid, and required in teaching programs, nursing programs, etc.), PEP (Professional Experience Program - offered in some Engineering programs).

Of those graduates who had prior postsecondary education at the Bachelor's level or above, 43% reported having had work placements during their program of study. The reader should recall here that 37% of these graduates completed a Bachelor's degree with a major in Education. By contrast, 34% of those with prior postsecondary education below the Bachelor's level and just 19% of those without prior postsecondary education reported having work placements. Table 2.8 illustrates the relationship between field of study and work placements.

Table 2.8

Did you have any work placements as part of your program?	weighted base	Yes
Field of Study		
General Arts & Science	25	-
Education	624	47%
Fine & Applied Arts	106	12%
Humanities	442	15%
Social Sciences	895	19%
Commerce & Administration	663	24%
Agricultural & Biological Sciences	444	**9%**
Engineering & Applied Sciences	326	43%
Health Professions	365	**55%**
Mathematics & Physical Sciences	311	25%
Information Technology	229	42%

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Overall, graduates who reported having had work placements (n=1,166) reported having an average of three, and the proportion of all work placements that were paid was 40%. This proportion varied by field. For example, nearly all graduates of Engineering & Applied Sciences (mean=2 placements), Commerce & Administration (mean=3 placements) and Mathematics & Physical Sciences (mean=3 placements) who reported work placements also reported that they were paid placements. For these fields, 94-96% of placements were paid. By contrast, just 5% of Health Professions (mean=6 placements) and 3% of Education (mean=3 placements) graduates reported that their work placements were paid, again reflecting program requirements of unpaid practicums. Social Sciences graduates reported an average of two work placements; 19% of all these placements were paid.

Reflecting the availability of programs with paid work placements among the three provinces, 30% of Nova Scotia, 26% of Prince Edward Island and 23% of New Brunswick graduates reported having had at least one paid work placement.

Time to Complete

Over three-quarters of the Class of 1999 reported that they completed their program in a normal (68%) or shorter (10%) amount of time. It is interesting to note that while approximately one-in-four of those with prior education at the high school (26%) or postsecondary below a Bachelor's level (24%) said they took a longer than expected amount of time to complete their studies, only about one-in-seven (14%) of those with a prior Bachelor's degree reported the same.

As could be expected, the actual number of years between program start and 1999 varied with degree level (Table 2.9).

Table 2.9

Number of Years Between Program Start and 1999 Among Graduates Who Studied Exclusively Full-time

	weighted base	2 or less	3	4	5	6 or more
Degree Level						
Bachelor's degree	2,642	13%	13%	**51%**	17%	6%
First Professional	133	-	39%	55%	-	-
Diploma/Certificate	168	**57%**	28%	-	-	-
Master's/Doctorate	255	**62%**	20%	-	-	-

Most Bachelor's level programs take four years to complete on a full-time basis; Bachelor level Education programs and many Master's programs can take two years. Students completing co-op education and/or Engineering programs can take five years. The distribution across the range of number of years to complete for each degree level appears to conform to the expected range, with just a small proportion of Bachelor level graduates having taken six or more years.

Looking at graduates who completed a Bachelor's degree in 1999 and studied exclusively full-time (n=2,642), we see an interesting trend among the three prior education groups: as the level of prior education increases, the time taken to complete the 1999 degree tends to decreases (Table 2.10).

There are probably a couple of reasons for this. First of all, a little over half (52%) of those with a prior Bachelor's degree or above completed their 1999 degree in the field of Education, and as stated earlier, these particular programs typically take less time than other programs at that level. Second, for those who had prior postsecondary education (whether below or at least a Bachelor's degree), there is a likelihood that advanced credit for prior studies was given, thus reducing the time to completion.

Table 2.10

Number of Years Between Program Start and 1999 Among Graduates Who Completed a Bachelor's Degree Exclusively Full-time

	weighted base	2 or less	3	4	5	6 or more
Prior level of Education						
High school diploma	1,903	1%	9%	**62%**	20%	8%
PSE below Bachelor's degree	415	22%	28%	32%	13%	5%
Bachelor's degree or above	324	**74%**	15%	7%	2%	1%

Survey findings also showed differences by province of graduation for graduates who completed a Bachelor's degree exclusively full-time. While Prince Edward Island Bachelor's graduates followed the overall pattern as presented in Table 2.9, Nova Scotia graduates were more likely (17%) to report having completed their program within three years. This may be explained by the fact that three-year Bachelor's level programs are offered by institutions in that province. New Brunswick graduates were more likely than graduates of the other two provinces to report taking five years (22%) or six or more years (9%) to complete their program. The proportion of Nova Scotia graduates who reported completing their program in five years was 14%, and in six or more years, 4%.

2.4 Evaluating The University Experience

Graduate Satisfaction with Services

Graduates were asked about their level of satisfaction with a variety of services: class size, availability of professors outside class time, quality of teaching and computer equipment. Table 2.11 summarizes the responses.

Table 2.11

	Graduate Satisfaction with Services			
(n=4,202)	very satisfied	satisfied	dissatisfied	very dissatisfied
Service				
Class Size	42%	53%	5%	< 1%
Quality of Teaching	34%	59%	6%	1%
Access to Professors	44%	50%	5%	1%
Computer Equipment Available	**20%**	59%	**14%**	3%

*Percent responding don't know/refused responses not shown

Although graduates can generally be said to be satisfied with these particular services, there are some differences in the degree of satisfaction. While graduates were most likely (44%) to report they were very satisfied with access to professors, just 20% reported the same level of satisfaction with the computer equipment available. Compared to the Class of 1996, 1999 graduates were as likely to report they were very satisfied with access to professors and class size, but were more likely (increase of 10 percentage points) to report they were very satisfied with the quality of teaching.

Looking at graduates' responses by degree level and gender revealed only minor variation. The greatest differences in the level of satisfaction with class size, access to professors, and quality of teaching (very little variation in satisfaction with computer equipment) were evident among fields of study (Table 2.12).

Table 2.12

	Percent reporting very satisfied with...			
	weighted base	Class Size	Quality of Teaching	Access to Professors
Field of Study				
General Arts & Science	25	-	-	-
Education	624	49%	37%	42%
Fine & Applied Arts	106	49%	49%	49%
Humanities	442	**54%**	**52%**	**59%**
Social Sciences	895	40%	38%	44%
Commerce & Administration	663	37%	27%	39%
Agricultural & Biological Sciences	444	39%	34%	46%
Engineering & Applied Sciences	326	37%	**19%**	**36%**
Health Professions	365	**34%**	**21%**	40%
Mathematics & Physical Sciences	311	40%	29%	45%
Information Technology	229	32%	21%	36%

- cell size too small for reliable analysis

Across the board, Humanities graduates expressed the greatest level of satisfaction. Over half were very satisfied with class size (54%) and quality of teaching (52%), and nearly 60% were very satisfied with access to professors. Least impressed with the quality of teaching were graduates of Engineering & Applied Sciences (19% very satisfied) and Health Professions programs (21% very satisfied). Health Professions graduates were also least likely to report being very satisfied (34%) with class size. Engineering & Applied Sciences graduates were least likely (36%) to say they were very satisfied with access to their professors.

The proportion of graduates reporting that they were either satisfied or very satisfied showed little variation by province of graduation (i.e., no more than ± 5 percentage points) with level of satisfaction with class size, quality of teaching, access to professors or availability of computer equipment.

Development of Skills

Along with earning a credential and mastering a field-specific body of knowledge, university graduates also come away from their studies with generally applicable skills essential for jobs in today's knowledge economy. Table 2.13 illustrates graduates' perceptions about the extent to which they thought their program was responsible for developing certain skills or providing certain information.

Table 2.13

Development of Skills (n=4,202)	To a great extent	To some extent	Very little	Not at all
To what extent did your university program...				
Provide knowledge about career opportunities	21%	**48%**	**25%**	6%
Develop writing skills	36%	**45%**	15%	4%
Develop math skills	22%	33%	19%	**26%**
Develop communication skills	**48%**	43%	7%	2%
Develop independent/critical thinking	**61%**	35%	3%	1%
Develop decision-making ability	**49%**	45%	5%	2%

The ability to think independently and critically was by far the skill most developed among all of the skill sets measured. The majority of graduates (61%) said that their university program developed this particular set of skills "to a great extent". Nearly half (48-49%) of all graduates agreed that their skills of communication and decision-making were developed to the same extent by their program of study. Most poorly developed among all graduates were math skills, where one-quarter (26%) of graduates reported that their program did not develop this set of skills at all. These trends follow very closely the responses given by the Class of 1996.

As might be expected, skills in writing and math are generally field-dependent. Table 2.14 shows the relationship between skill development and field of study.

Table 2.14

To what extent did your program develop...	weighted base	writing skillls: very little/ not at all	writing skillls: some or great	math skills: very little/ not at all	math skills: some or great
Field of Study					
General Arts & Science	25	-	-	-	-
Education	625	22%	78%	61%	39%
Fine & Applied Arts	107	31%	69%	**87%**	13%
Humanities	442	5%	**95%**	82%	18%
Social Sciences	895	12%	88%	64%	36%
Commerce & Administration	663	21%	80%	15%	85%
Agricultural & Biological Sciences	443	19%	81%	21%	79%
Engineering & Applied Sciences	326	27%	73%	9%	**91%**
Health Professions	365	22%	78%	56%	44%
Mathematics & Physical Sciences	311	**34%**	66%	9%	**91%**
Information Technology	228	31%	69%	14%	87%

- cell size too small for reliable analysis

Graduates of Mathematics & Physical Sciences (66%) were least likely, and Humanities (95%) most likely, to report that their writing skills were developed to some or a great extent. The development of math skills was most likely to be developed to some or a great extent among Mathematics & Physical Sciences (91%)

and Engineering & Applied Sciences graduates (91%), and least likely among graduates of Fine & Applied Arts (13%) and Humanities (18%) programs.

While there was little variation among most fields of study with respect to the development of communication skills, it is interesting to note that while 67% of Humanities graduates reported that this set of skills was developed "to a great extent", just 25% of Health Professions graduates reported the same level of development.

Was the Financial and Time Investment in University Education Worth It?

Maritime graduates were surveyed two years after graduating, ample time for them to realize the benefits of their education in the workforce, or perhaps as grounding for further study. The value they place on their university education is, arguably, dependent on the extent to which they have been able to put their knowledge to use and/or on the earnings advantage it has generated.

Generally speaking, Maritime graduates have a positive view of the value of their education, agreeing that both the money and time invested were well spent. As shown in Table 2.15, just over eight-in-ten (83%) of all graduates said that the time they invested was worth it. Respondents were only somewhat less likely to be as enthusiastic about the money they invested, with 78% reporting it was worth it[1].

Very few graduates said that the time they invested (4%) and the money they invested (6%) was not worth it.

Table 2.15 illustrates the relationship among different groups of graduates and their perceptions of the value of their investments. Over three-quarters (78%) of all graduates said their financial investment had been "worth it", 10 percentage points more than the previous cohort (Class of 1996) interviewed four years after graduating. Class of 1999 graduates (83%) were also more likely than Class of 1996 graduates (77%) to say their investment of time had been worth it.

The most important point to note is that although the Class of 1999 borrowed more and in greater numbers than the previous cohort, they expressed a greater level of satisfaction with their financial investment.

[1]As in the 2000 Survey of the Class of 1996, respondents were asked twice to report on the value they placed on the time and financial investment made in their (1999) education, once at the beginning of the survey, and once at the end. In this way, we could compare top-of-mind impressions of this question with reactions respondents had after considering their experiences as they passed through the survey. Interestingly, slightly more graduates placed value on their investments at the end of the survey: While just 75% thought their financial investment was worth it when asked at the beginning of the survey, 78.1% thought the same by the end of the survey, an increase of three percentage points. Less of a difference was observed in graduates' perceptions about the investment of time. 82.6% agreed their personal investment of time was worth it when asked the question at the beginning; this proportion increased by less than one percentage point by the end of the survey, when 83.4% reported the time invested was worth it. This suggests that at least in the case of perception of financial investment, when graduates are asked to think about their university experience, they tend to think more positively about it than in the absence of discussion. *Findings presented in this chapter are based on the question asked at the end of the survey.* (Ipsos Reid, 2001. *2000 Follow-up Survey with the Class of 1996 Maritime University Graduates.* MPHEC.)

Table 2.15

Value of Investment in 1999 Education

	weighted base	Investment of Time*		Financial Investment*	
		worth it[1]	not worth it[2]	worth it[1]	not worth it[2]
Overall	4,202	83%	4%	78%	6%
Gender					
Male	1,707	81%	5%	76%	7%
Female	2,495	85%	3%	79%	5%
Language spoken most often at home[3]					
English	3,662	84%	4%	79%	6%
French	409	83%	3%	76%	6%
Personal Income[4]					
less than $20,000	1,521	83%	4%	74%	7%
$20,001 - $39,999	1,114	86%	4%	80%	6%
$40,000 or more	947	86%	4%	**87%**	3%
Degree					
Bachelor's degree	3,250	83%	4%	77%	7%
First Professional	147	**91%**	1%	**89%**	2%
Diploma/Certificate	272	82%	3%	75%	5%
Master's/Doctorate	533	85%	3%	86%	4%
Field of Study					
General Arts & Science	25	-	-	-	-
Education	625	83%	5%	79%	6%
Fine & Applied Arts	107	**93%**	4%	78%	7%
Humanities	442	88%	2%	81%	6%
Social Sciences	895	81%	4%	71%	8%
Commerce & Administration	663	84%	4%	80%	5%
Agricultural & Biological Sciences	443	82%	3%	77%	5%
Engineering & Applied Sciences	326	83%	6%	79%	5%
Health Professions	365	83%	4%	82%	5%
Mathematics & Physical Sciences	311	84%	4%	**84%**	4%
Information Technology	228	84%	5%	**85%**	5%
Labour Force Status					
Employed	3,527	84%	4%	79%	6%
Unemployed	275	80%	5%	68%	10%
Not in Labour Force	400	**86%**	3%	**80%**	5%

* statistics based on questions asked at end of survey
[1] 4,5 on a 5-point scale, where 1=not at all worth it and 5=well worth it
[2] 1,2 on a 5-point scale where 1=not at all worth it and 5=well worth it
[3] total n does not equal 4,202 because results for "French and English" and "Other" not shown
[4] range derived from graduate's best estimate for total personal income in 2000; results for "don't know" or "refused" not shown
- cell size too small for reliable analysis

While for the most part there is little variation within groups of graduates with respect to investment of time, some notable exceptions do stand apart. While graduates generally rate the personal time they invested in their education highly (83% said it was worth it), those who graduated with a First Professional degree (91%) and those who completed a program in the field of Fine & Applied Arts (93%) were even more enthusiastic. Slight differences can also be seen in relation to labour force status in the reference week - those who were unemployed were least likely (80%) to say their investment of time had been worth it.

Not surprisingly, this same group of graduates, in a situation where they are perhaps frustrated with searching for a job, were least likely (68%) to report their financial investment had been worth it. A graduate's financial situation at the time of the interview clearly had an influence on their opinion about the

value of money invested in their education: just 74% of those in the lowest income bracket (earned less than $20,000 in 2000) said their financial investment had been worth it, while 87% (a difference of 13 percentage points) of those whose 2000 income was at least $40,000 reported the same.

The value graduates place on their financial investment varies with field of study. Graduates of programs in the Social Sciences rated this investment the lowest (71%), while graduates of Mathematics & Physical Sciences rated it the highest (84%). The subset of graduates who completed a program in Information Technology were very enthusiastic about their financial investment - 85% said it was worth it.

Looking at degree level, we find that Bachelor's (77%) and Diploma/Certificate (75%) graduates were least likely to report they thought their financial investment was worth it, while those who obtained a First Professional (89%) or Master's/Doctorate (86%) degree were most likely to report the same.

Finally, graduates who had attained at least a Bachelor's degree prior to enrolling in their 1999 studies were more likely (84%) than those who had enrolled with a high school diploma (76%) or postsecondary education below the Bachelor level (77%) to say that their financial investment had been worth it (rating 4-5 on a 5-point scale, where 1=not at all worth it, and 5=well worth it).

There was no difference among the provinces (of graduation) in the level of satisfaction with the personal investment of time or the financial investment.

Would Graduates Follow the Same Path at University?

Survey findings show that graduates of the Class of 1999 are pleased with the educational choices they made. Asked to consider whether or not they would pursue the same path at university if they had the chance to do it again, the vast majority of graduates said they would choose to attend the same institution (81%), and pursue the same field of study (78%). Table 2.16 summarizes the responses of different groups of graduates to these questions.

A similar proportion (82%) of graduates of the Class of 1996 interviewed in 2000 said they would choose the same institution; fewer (68%) said that had they the chance to do it over again, they would choose the same field of study.

Table 2.16

	If You Could Choose Again...				
	weighted base	Choose Same Institution?*		Choose Same Field of Study?*	
		Yes	No	Yes	No
Overall	4,202	81%	17%	78%	21%
Field of Study					
General Arts & Science	25	-	-	-	-
Education	625	**85%**	13%	**82%**	16%
Fine & Applied Arts	107	**75%**	21%	83%	16%
Humanities	442	83%	15%	78%	22%
Social Sciences	895	80%	18%	74%	25%
Commerce & Administration	663	81%	17%	82%	16%
Agricultural & Biological Sciences	443	80%	16%	**69%**	28%
Engineering & Applied Sciences	326	76%	22%	82%	17%
Health Professions	365	83%	15%	81%	17%
Mathematics & Physical Sciences	311	80%	18%	78%	21%
Information Technology	229	76%	20%	**87%**	13%
Degree					
Bachelor's degree	3,250	**80%**	17%	**76%**	22%
First Professional	147	**87%**	13%	**93%**	6%
Diploma/Certificate	272	83%	16%	81%	18%
Master's/Doctorate	533	82%	16%	85%	14%
Prior Level of Education					
High school diploma	2,410	**80%**	17%	**74%**	24%
PSE below Bachelor's degree	674	80%	17%	78%	20%
At least Bachelor's degree	1,113	**83%**	15%	**86%**	13%
Use of skills from program completed in 1999 (among employed graduates)					
To a great extent	1,515	**86%**	**12%**	**90%**	9%
To some extent	1,209	81%	17%	78%	21%
Very little	444	74%	23%	61%	36%
Not at all	357	**72%**	**25%**	**56%**	43%
Job Relatedness to Program (among employed graduates)					
Closely related	1,671	**85%**	**13%**	**89%**	9%
Somewhat related	978	80%	18%	76%	22%
Not related	850	**76%**	**21%**	**61%**	37%
Satisfaction With Job (among employed graduates)					
Very Satisfied	1,540	**83%**	15%	**85%**	14%
Satisfied	1,657	81%	17%	76%	22%
Dissatisfied	264	**74%**	**23%**	**60%**	38%
Very dissatisfied	64	75%	24%	69%	28%
Personal Income					
less than $20,000	1,521	**81%**	17%	**75%**	24%
$20,001 - $39,999	1,114	**82%**	16%	79%	19%
$40,000 or more	947	81%	16%	**85%**	14%

*Don't know/refused responses are not shown
- cell size too small for reliable analysis

The most striking feature of these findings is that the response to whether or not a graduate would choose the same field of study varies much more within the groups than does the question of choosing the same institution. Especially notable is the variation within the employment and income related variables.

Graduates who reported that they were using the skills learned in their 1999 program "to a great extent" were very enthusiastic about their choice of field - 90% of them said if given the chance again they would choose the same field of study. At the bottom of the scale are those who reported they were not using their skills at all. Only 56% of them said they would choose the same field. This 34 percentage point difference

strongly indicates that graduates' perception of the choice they made on enrolling in their 1999 studies really depends on their successes in the labour market. Further supporting this hypothesis is the range of responses within job relatedness, job satisfaction and personal income. Looking at the characteristics of the job in the reference week, those who had a position closely related to their field of study (89%), were very satisfied with their job (85%), and were in the top personal income bracket (85%) were the most likely to say they would choose the same field again. Those whose job was not at all related (61%), were dissatisfied with their job (60%) and were in the lowest income bracket (75%) were the least likely to do so.

The reason for these differences is likely that the field of study one chooses is a more important determinant of the nature of employment after graduation than is the institution. The link between the institution from which a graduate obtained his or her degree and employment success later on is weaker. Nevertheless, the same general trends observed in choosing the same field of study do exist for choosing the same institution.

There are variations among the fields of study with respect to graduates' opinions on these two questions. In both cases, Education graduates were most likely to report they would choose the same field of study (82%) and the same institution (85%) if they were given the chance. While Agricultural & Biological Sciences graduates were least likely (69%) to choose the same field of study, Fine & Applied Arts graduates were least likely (75%) to choose the same institution.

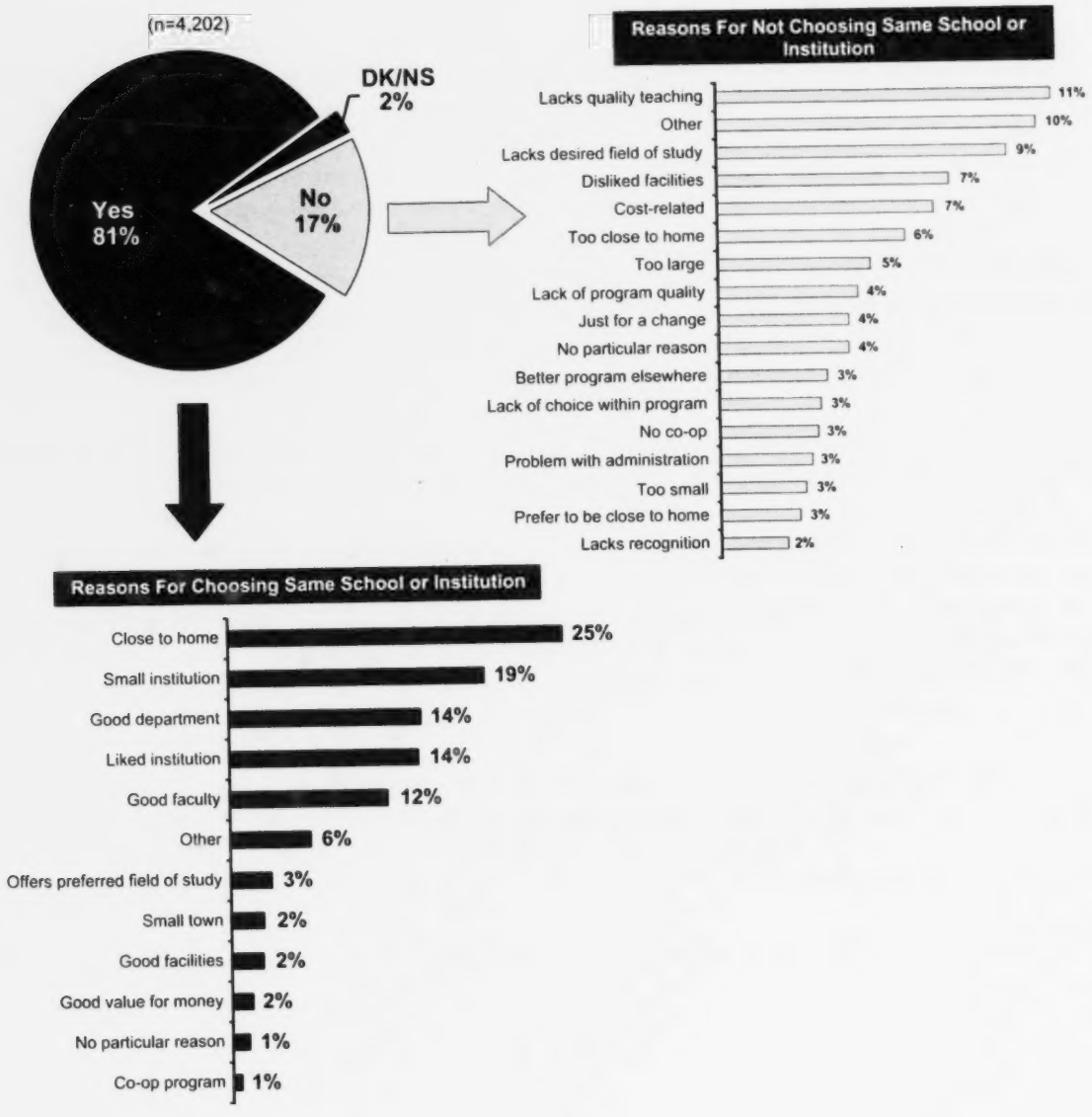
Choose Same Institution Again?

Maritime graduates seem to be very happy with the institution they chose for their 1999 studies. About 8-in-10 said that if given the chance, they would choose the same institution. As can be seen in Figure 2.1, the reasons for that choice were varied.

Figure 2.1

Same School or Institution?

"If you could choose again, would you select the same school or institution?"



Reasons for Choosing Same Institution

Two main reasons were given by those graduates who said they would choose the same institution: quality of education received and location.

Quality of Education/Institution (67% of mentions): Nearly two-in-ten (19%) would choose the same institution because of its small size; 12% were pleased with the quality of its teachers, 14% with the department, and another 14% simply stated they like the institution. Four percent would choose the same institution because it offered a certain program or had a co-op program, and another 4% thought their institution had good facilities or that they had received good value for their money.

Location (27% of mentions): The single most popular reason given by graduates for choosing the same institution was that it was close to home (25%). A further 2% liked that it was located in a small town.

Reasons for Not Choosing Same Institution

Overall, 17% of graduates would not choose the same institution if given the chance. As with the reasons given above, most concerned quality of education/institution, and program availability.

Quality of Education/Institution and Program Availability (47% of mentions): The top reason given by graduates who would not choose the same institution was "lacks quality of teaching" (11%). Other reasons of this nature included "lacks desired field of study" (9%), "disliked facilities" (7%), "institution too large" (5%), and "lack of program quality" (4%). A further 11% said there were better programs elsewhere, that there was a lack of choice within their program, that they had problems with the administration, or that their institution lacked recognition.

Nine percent of graduates gave a reason related to location, either that their institution was too close to home (6%) or that they would rather have been closer to home (3%).

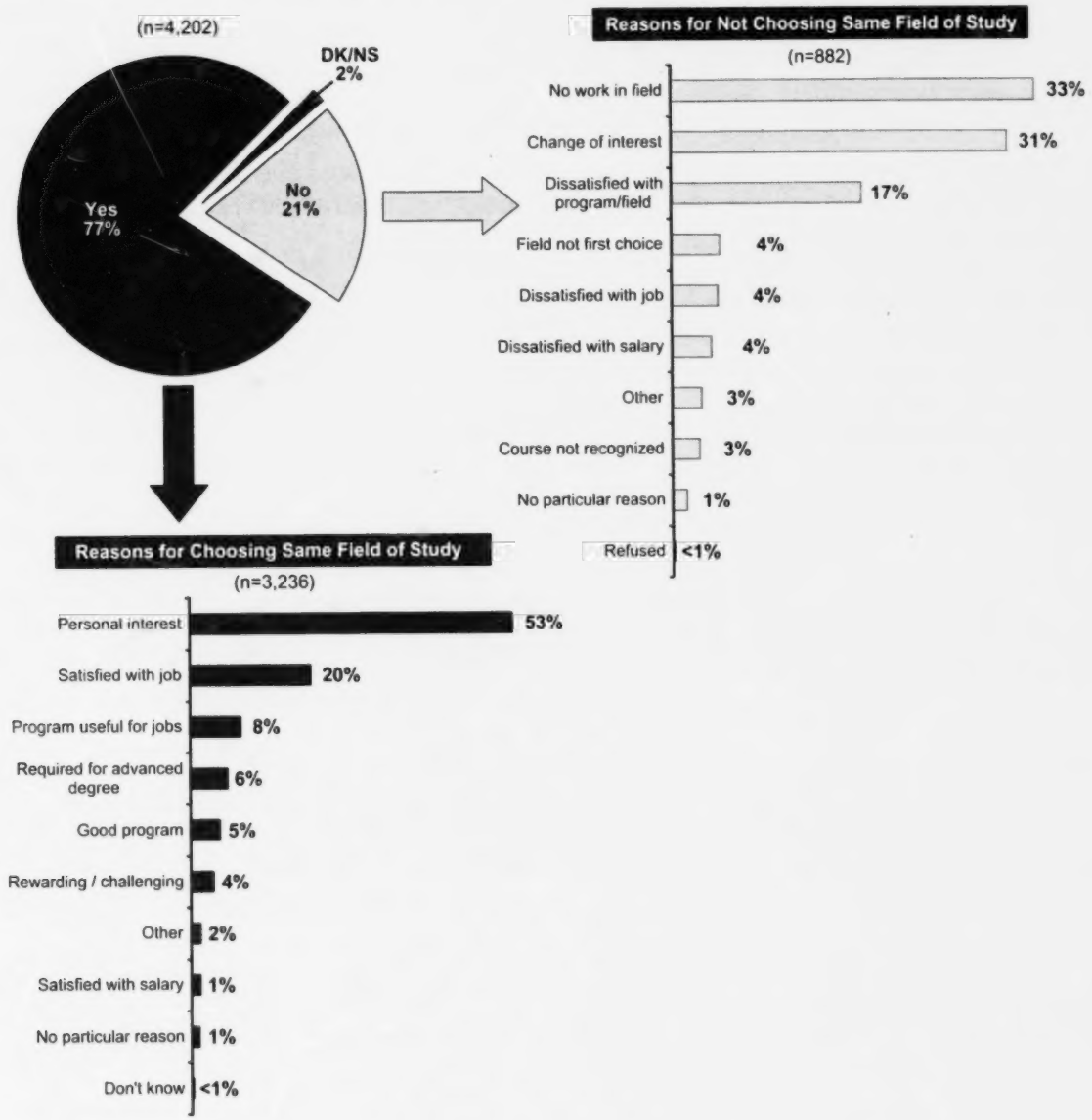
Choose Same Field Again?

Over three-quarters (77%) of all graduates said they would choose the same field of study again (Figure 2.2).

Figure 2.2

Same Field of Study?

"If you could choose again, would you select the same field of study or specializaton for the degree you completed in 1999?"



Reasons for Choosing Same Field

Of those graduates who would choose the same field of study again had they to do it over, more than half (53%) said it was because of a personal interest. The next most popular reasons given were satisfaction with their job (20%) and that their program was useful on the job market (8%).

Reasons for Not Choosing the Same Field

The reasons given for not choosing the same field of study mirror those given *for* choosing it. Nearly a third (31%) would not choose it due simply to a change in interest. Another third would not choose the same field because they could not find work in their field (33%), or they were dissatisfied with their job (4%) or salary (4%). A further 17% expressed dissatisfaction with their field of study and 4% claimed it had not been their first choice.

In both cases (choosing or not choosing the same field of study), the reasons given for the choice follow the trends observed in Table 2.16 where the degree of job success influenced whether or not a graduate would choose the same field of study.

It is abundantly clear that whether or not students enrol with "getting a job" in mind, they certainly expect that they should be using their university skills in a well-paying job related to their field of study. When they do not, graduates end up questioning whether their choice of field of study was the right one.

3. WORK AND EDUCATION

3.1 Labour Force Activity

The following definitions[1] are provided to help the reader interpret the information presented in this chapter:

Reference Week: The study was conducted between May and July, 2001. Respondents were asked about their labour force status for the week prior to being interviewed.

Labour Force Status: Whether graduates are employed, unemployed, or not in the labour force during the study's reference week.

In Labour Force: Graduates working, not working but looking for work, and not working but who have accepted a full-time job due to start within four weeks. Full-time students looking for part-time work are included in the labour force; full-time students looking for full-time work are not.

Not in Labour Force: Graduates not working full- or part-time during the reference week and not looking or not available for work. Full-time students looking for full-time work.

Employed: Graduates working full- or part-time for pay during the reference week.
Full-time = 30 or more hours per week
Part-time = less than 30 hours per week

Unemployed: Graduates not working during the reference week, but looking for work, as well as those who had accepted a full-time job to start within a four-week period from the time of the interview.

Unemployment Rate: The number of unemployed graduates expressed as a percentage of the total number of graduates in the labour force.

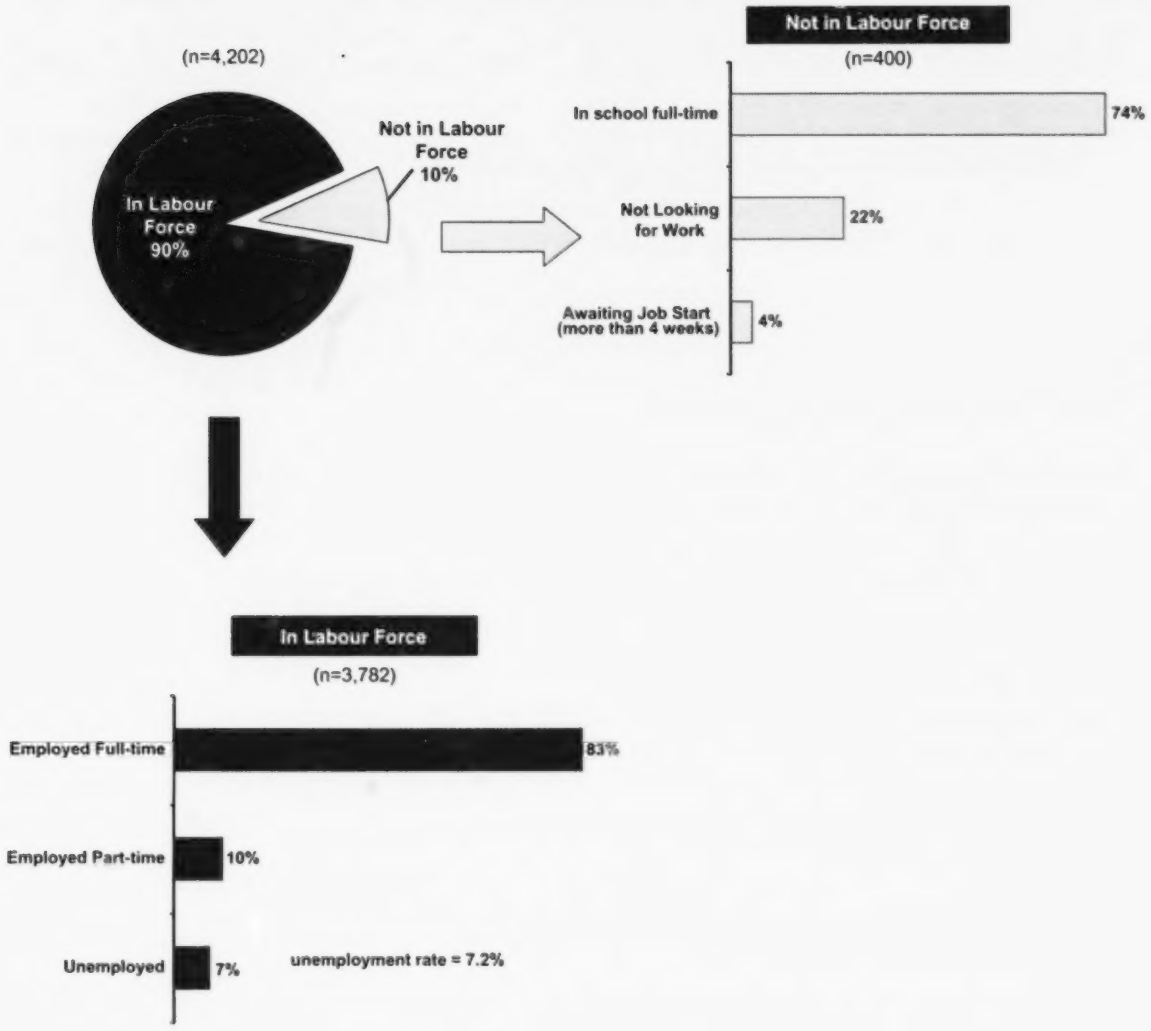
Currently not Working: Graduates unemployed or out of the labour force during the reference week, but who have had a job since graduating in 1999.

Labour Force Status

Two years after they graduated, the majority (90%) of graduates were part of the labour force (Figure 3.1). Of these graduates, 83% were employed full-time and 10% were employed part time. A further 7% were unemployed.

[1]Definitions for Labour Force, Employed and Unemployed, and Unemployment Rate are based on Statistics Canada's Labour Force Survey (see Guide to the Labour Force Survey, Statistics Canada Catalogue no. 71-543-GIE (2000).)

Figure 3.1
Labour Force Status in 2001



Nearly three-quarters (74%) of those graduates identified as not in the labour force reported they were in school full-time. A further 22% were not looking for work and just 4% were waiting for a job to start more than four weeks from the time of the interview.

Table 3.1 presents comparable statistics from the longitudinal survey of the Class of 1996 one (1997) and four (2000) years after graduation, and the National Graduate Survey (Class of 1995).

Table 3.1

Labour Force Status Profile	Statistics Canada National Graduate Survey	MPHEC Maritime University Graduate Surveys		
	Class of 1995 in 1997 - Maritime University Graduates	Class of 1996 in 1997 - Maritime University Graduates	Class of 1996 in 2000	Class of 1999 in 2001
All Graduates	**(10,774)**	**(4,124)**	**(2,379)**	**(4,202)**
In Labour Force	90%	91%	89%	90%
Not in Labour Force	10%	9%	11%	10%
In Labour Force	**(9,695)**	**(3,736)**	**(2,120)**	**(3,802)**
Employed	87%	88%	93%	93%
Unemployed	13%	12%	7%	7%
Employed	**(8,456)**	**(3,293)**	**(1,982)**	**(3,527)**
Full-time	87%	87%	89%	89%
Part-time	13%	12%	11%	10%

There is little variation among the surveys in the proportion of graduates in the labour force, however, there are differences in unemployment rate, ranging from 7% for the Class of 1999 and the Class of 1996 four years after graduation, to 13% for the Class of 1995 two years after graduation. This may reflect the particularly weak labour market of the mid-1990s in the region[2].

Table 3.2 shows the employment status by different groups of graduates. While we find no great differences based on gender or language spoken most often at home, we do find significant differences among the degree levels and fields of study. Those graduates who had obtained a Master's/Doctorate (90%) or First Professional (88%) degree were most likely to be employed in the reference week.

Members of the Class of 1999 who had obtained a Bachelor's degree were the most likely to have reported being out of the labour force at the time of the interview; furthermore, fully 81% of these graduates also reported they were currently enrolled in a program of study. Graduates of Agricultural & Biological Sciences (22%) were by far the most likely to be out of the labour force (and among the least likely to be employed, 72%), whereas graduates of Commerce & Administration (4%) or Education (5%) programs were the least likely to have reported they were out of the labour force. The highest proportion of graduates employed had followed a program of study in the Health Professions (94%).

[2]Source: Atlantic Provinces Economic Council. Summer, 1999. The Dual Nature of Labour Market Adjustments in Atlantic Canada.

Table 3.2

	Employment Status in 2001			
	weighted base	Employed	Unemployed	Not in Labour Force
Overall	4,202	84%	6%	10%
Gender				
Male	1,707	83%	7%	9%
Female	2,495	84%	6%	10%
Language spoken most often at home				
English	3,662	84%	7%	10%
French	409	89%	5%	7%
Degree Level				
Bachelor's degree	3,250	83%	7%	**10%**
First Professional	147	88%	6%	5%
Diploma/Certificate	272	85%	**10%**	5%
Master's/Doctorate	533	**90%**	3%	8%
Field of Study				
General Arts & Science	25	-	-	-
Education	625	91%	4%	5%
Fine & Applied Arts	107	**71%**	13%	15%
Humanities	442	75%	9%	16%
Social Sciences	895	82%	9%	10%
Commerce & Administration	663	90%	6%	**4%**
Agricultural & Biological Sciences	443	72%	7%	**22%**
Engineering & Applied Sciences	326	86%	7%	7%
Health Professions	365	**94%**	2%	4%
Mathematics & Physical Sciences	311	82%	7%	12%
Information Technology	229	88%	7%	5%
Province of Graduation				
PEI	180	84%	6%	10%
NS	2,578	83%	7%	10%
NB	1,444	86%	5%	9%
Prior Level of Education				
High school diploma	2,410	81%	8%	**12%**
PSE below Bachelor's degree	674	88%	7%	6%
Bachelor's degree or above	1,113	**89%**	4%	7%

- cell size too small for reliable analysis

Employment status seems in large part determined on whether or not a graduate's 1999 degree represented for them a subsequent postsecondary credential. If they had enrolled in their 1999 studies with at least some postsecondary education (the "PSE below Bachelor's degree" and "Bachelor's degree or above" groups), they were less likely to have returned for further study after graduation in 1999, and so were more likely to be in the labour force. Those with no prior postsecondary education (12%) were twice as likely as those with some level of postsecondary education (6-7%) to be out of the labour force at the time of the interview.

Furthermore, of those identified as "not in the labour force", 86% of graduates in the high school diploma group said they were currently enrolled in a program of study, while only 51% of those with a Bachelor's degree or above, and 59% of those with postsecondary education below a Bachelor's degree reported the same.

Employment status did not vary significantly by province of graduation.

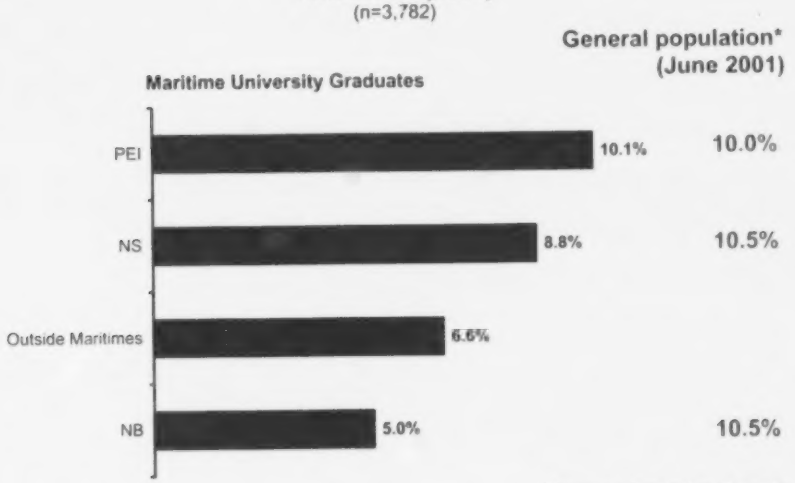
Unemployment Rates

The unemployment rate[3] expresses the number unemployed as a proportion of the total number in the labour force. Figure 3.2 shows the unemployment rates for 1999 graduates by province/region of residence in 2001 and compares these rates with Statistics Canada's unemployment rates for the general population in the Maritime provinces. Highest rates were observed among those graduates living in Prince Edward Island (10%), and lowest among those living in New Brunswick (5%).

The unemployment rate stood at 7.2% for all graduates in the reference week.

Figure 3.2

Unemployment Rate by Province or Region of Residence (2001)
(n=3,782)



*Source: Statistics Canada

Compared to the general population, graduates living in New Brunswick have the greatest advantage over the general population when it comes to unemployment rates, with a 5.5 percentage point difference. While there is a 1.7 percentage point difference between 1999 graduates and the general population living in Nova Scotia, there is almost no difference for those living in Prince Edward Island.

The unemployment rates by *province of study* were: Nova Scotia, 8.2%; New Brunswick, 5.7%, and Prince Edward Island, 6.1%. That the unemployment rate was 4 percentage points lower among those who *studied*

[3]Unemployment rate = # unemployed / (# employed + # unemployed)

in Prince Edward Island as opposed to those who were living in that province in 2001, may help to explain the high proportion of graduates who leave the province (see section 3.4 Graduate Mobility).

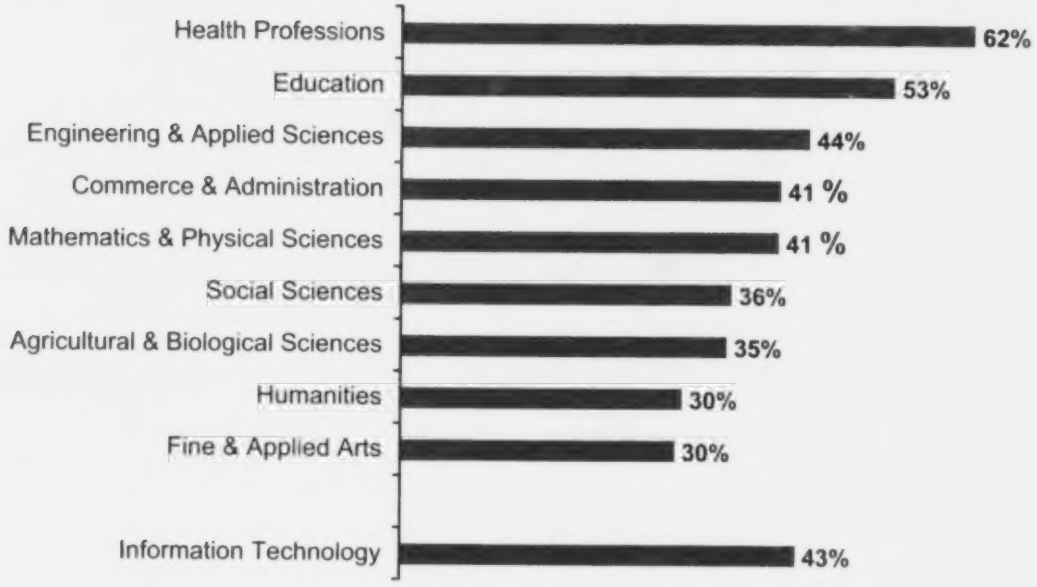
First Job After Graduation

Two years after graduation, 37% of all employed graduates were still working at the first job they obtained after graduating. As illustrated by Figure 3.3, graduates of certain fields were significantly more likely than others to still be employed in their first position. Topping the list were graduates of Health Professions (62%) and Education (53%) programs; least likely to be employed in their first position were graduates of Humanities (30%) and Fine & Applied Arts programs (30%).

Figure 3.3

Percent of Graduates Still Employed in First Job Obtained after Graduation by Field of Study

(n=3,527)



In addition, the proportion of graduates still employed in their first job in 2001 varied significantly with prior level of education: those who enrolled in their 1999 studies with a high school diploma were the least likely (35%), and those who enrolled with a Bachelor's degree or above (56%) the most likely to report having the same job. In the middle were graduates who had enrolled with some prior postsecondary education below the Bachelor's level (46% said they were still employed in their first job). Those with advanced education were also more likely to have a greater amount of work experience prior to entering the job market following graduation; these two factors combined explain the difference.

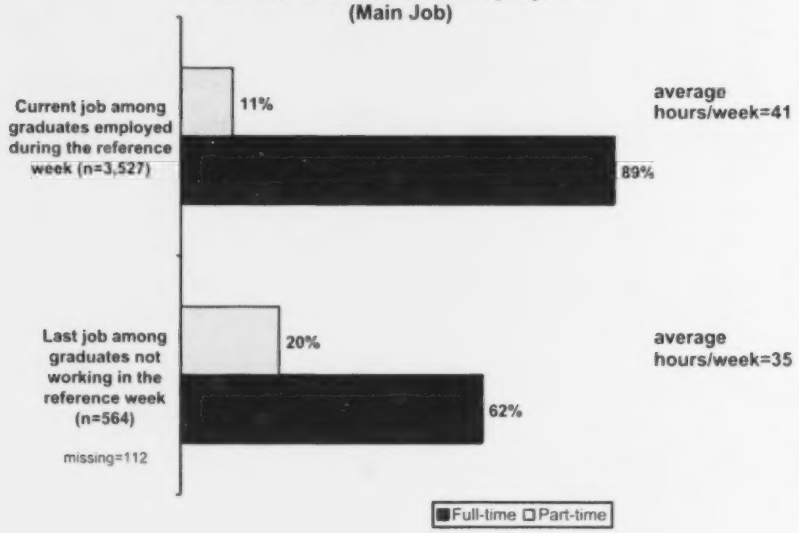
Full-time vs. Part-time Employment

Graduates who said they were employed in the reference week worked, on average, 41 hours a week at their main job. Graduates with permanent positions worked slightly longer hours (41 hours per week) than did those who did not (38 hours per week). Interestingly, those who said they worked at one job worked, on average, more hours (41 hours per week) than those who said they had more than one employer (33 hours per week). Those graduates who tended to work the longest hours had graduated from programs in Engineering (44 hours per week); those working the fewest hours had completed programs in the Humanities (37 hours per week) and the Social Sciences (38 hours per week). Men reported working, on average, 43 hours per week, significantly more than women, who reported working an average of 39 hours per week.

In this report, a graduate working 30 or more hours per week is identified as employed full-time; those working less than 30 hours are identified as employed part-time. Looking at those graduates who were employed in the reference week, nearly nine-in-ten (89%) worked full-time at their main job (Figure 3.4). The remaining 11% worked part-time.

Figure 3.4

Full-time vs. Part-time Employment
(Main Job)



For those graduates who were not working during the reference week, but who had reported having had at least one job since graduating, the break down is quite different. Less than two-thirds (62%) of these graduates said that their last job had been full-time. One-in-five said they had worked part-time, almost double the proportion of employed graduates who were working part-time at the time of the interview. This suggests that the nature of the previous employment may have been an influencing factor on a graduate's decision to return to school: 60% of these graduates also said they were currently enrolled in an educational program.

Whether or not an employed graduate was working full-time in the reference week depended to some extent on gender, language and program completed in 1999. Men (93%) were significantly more likely than women (87%) to be working full-time (Table 3.3). Similarly, French-speaking graduates (93%) were significantly more likely than English-speaking graduates (89%) to have a full-time position. Certain fields of study also influenced the likelihood that a graduate had a full-time job: Engineering & Applied Science (98%) and Commerce & Administration (95%) graduates were the most likely, and Social Sciences (85%) and Humanities graduates (82%) the least likely to report having a full-time job.

Table 3.3

Full- and Part-time Employment Among Employed Graduates

	weighted base	Full-time	Part-time
Overall*	3,527	89%	11%
Gender			
Male	1,419	93%	7%
Female	2,104	87%	13%
Language Spoken Most Often at Home			
English	3,068	89%	11%
French	363	93%	7%
Degree Level			
Bachelor's degree	2,684	88%	12%
First Professional	130	**98%**	2%
Diploma/Certificate	231	91%	9%
Master's/Doctorate	478	91%	9%
Field of Study			
General Arts & Science	22	-	-
Education	569	88%	12%
Fine & Applied Arts	76	83%	16%
Humanities	331	**82%**	19%
Social Sciences	731	85%	15%
Commerce & Administration	599	**95%**	5%
Agricultural & Biological Sciences	317	87%	13%
Engineering & Applied Sciences	282	98%	2%
Health Professions	343	94%	6%
Mathematics & Physical Sciences	254	93%	7%
Information Technology	202	96%	4%
Prior Level of Education			
High school diploma	1,939	88%	12%
PSE below Bachelor's degree	590	91%	9%
Bachelor's degree or above	992	91%	9%

- cell size too small for reliable analysis

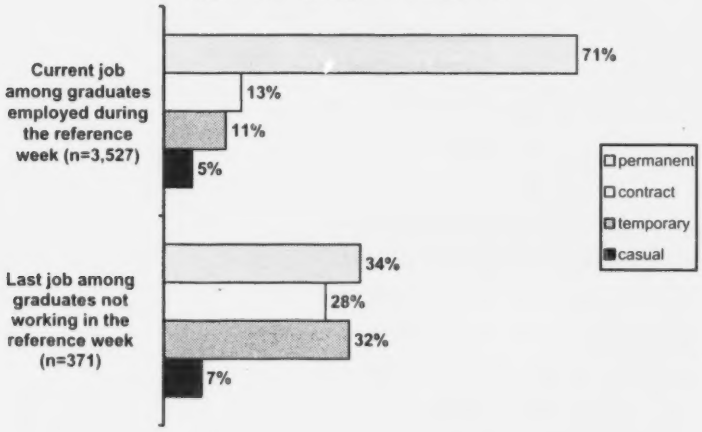
Province of residence in 2001 had very little influence on whether a graduate was employed full-time.

Nature of Graduate Employment

Graduates who were working in the reference week were most likely to have had a permanent position (71%) (Figure 3.5). Those who did not have a permanent position were nearly as likely to have held a temporary position (11%) as they were a contract (13%). The remaining 5% reported that their position was casual.

Figure 3.5

Type of Employment Position



This distribution is, again, quite different from that group of graduates who, although not employed in the reference week, had reported having had at least one job since graduating (Figure 3.5). Only one-third (34%) of these graduates reported that their last job was permanent; another third (32%) reported that their position had been temporary (21 percentage points more than those employed in the reference week). In addition, many more reported that they had held their last job on a contract basis (28%). The proportion who were employed in a casual position (7%) varied little from those employed in the reference week.

Among employed graduates, men (75%) were significantly more likely than women (69%) to say that their job was permanent. In addition, while over eight-in-ten (81%) who completed Master's or Doctoral degrees had permanent positions, 69% of those who obtained a Bachelor's degree reported the same. The tendency to have a permanent position also varied somewhat by field, with graduates of Agricultural & Biological Sciences programs least (58%) and Commerce & Administration graduates most (86%) likely to report having a permanent position.

There was no difference among provinces (residence in 2001) in the proportion of graduates employed in permanent employment positions.

Type of Occupation

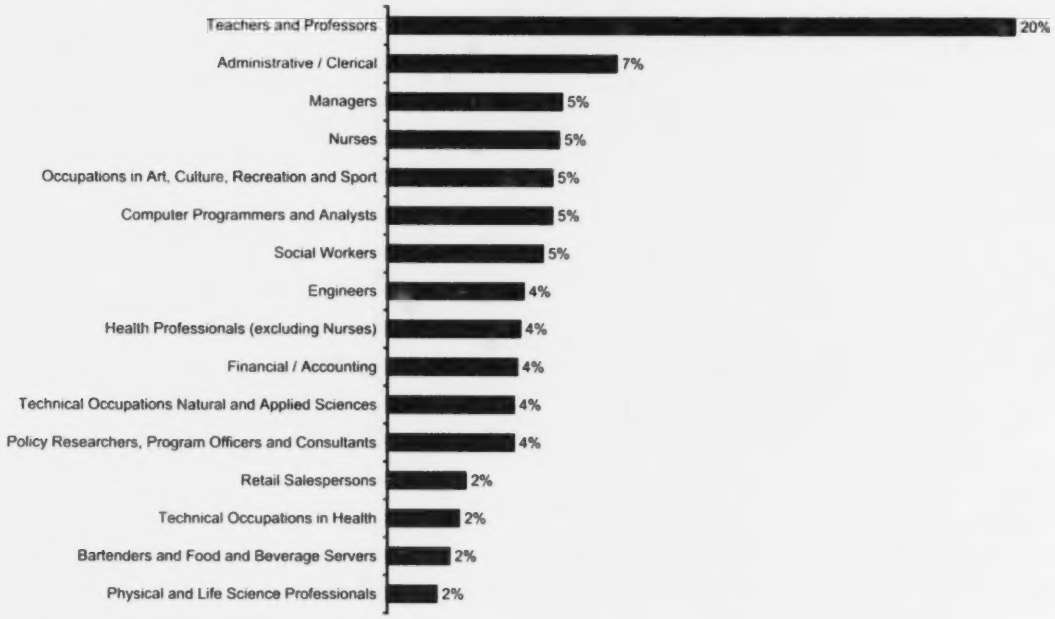
Similar to the results of the previous MPHEC survey (Class of 1996 in 2000), the single most popular occupation among 1999 Maritime university graduates employed in 2001 was teaching (Figure 3.6). Two-in-ten graduates of the class of 1999 reported having a teaching job. Of these graduates, three-quarters (76%)

were elementary or secondary school teachers and one-quarter (24%) were teaching at the university or college level, either as a professor or instructor.

Figure 3.6

Type of Occupation[1] Among Employed Graduates

"What kind of work did you do?"
(n=3,527)


Teachers and Professors 20%
Administrative / Clerical 7%
Managers 5%
Nurses 5%
Occupations in Art, Culture, Recreation and Sport 5%
Computer Programmers and Analysts 5%
Social Workers 5%
Engineers 4%
Health Professionals (excluding Nurses) 4%
Financial / Accounting 4%
Technical Occupations Natural and Applied Sciences 4%
Policy Researchers, Program Officers and Consultants 4%
Retail Salespersons 2%
Technical Occupations in Health 2%
Bartenders and Food and Beverage Servers 2%
Physical and Life Science Professionals 2%

Occupations employing 1% or fewer graduates not shown
[1]See Appendix 2 for classification scheme

One year after graduating, 12% of the Class of 1996 were working as Teachers; by four years after graduating, this proportion had climbed to 25%. 1999 graduates returning to school to pursue studies in the field of Education (n=388) did so with employment-related reasons as motivation: almost three-quarters (74%) said that the reason for returning to study was either to get a job (or a better job) or to earn more money.

The distribution of employed graduates among the different categories of employment occupations continues to follow the trends established in previous surveys. Administrative/Clerical (7%), Management (5%), Nursing (5%) Computer-related (5%), and Social Work (5%) occupations still attract the majority of graduates.

Similar to the trend observed among graduates of the Class of 1996 surveyed in 2000, Bartending, Food and Beverage Servers and Retail Sales positions still account for 4% of jobs.

The type of occupation depends on a number of factors, as illustrated in Table 3.4. Considering only the top six occupations overall, it appears that the traditional divisions among the sexes still exist in the workplace: for example, while 11% of men had reported that they were employed as Computer Programmers/Analysts, just 1% of women reported the same. In addition, women were more likely to hold

positions as Teachers (23%) or Nurses (8%) than were their male counterparts (14% were Teachers, and 1% were Nurses). This distribution largely reflects program choices, as discussed in section 2.2.

Table 3.4

	Type of Occupation (Top 6 Occupations) Among Employed Graduates						
	weighted base	Teachers and Professors	Computer Programmers and Analysts	Nurses	Social Workers	Managers	Administrative / Clerical
Overall	3,527	20%	5%	5%	5%	5%	7%
Gender							
Male	1,419	**14%**	**11%**	1%	3%	7%	4%
Female	2,104	**23%**	1%	**8%**	6%	4%	9%
Degree Level							
Bachelor's degree	2,684	18%	6%	7%	5%	4%	8%
First Professional	130					1%	1%
Diploma/Certificate	231	18%	2%	1%	4%	5%	**13%**
Master's/Doctorate	478	**32%**	5%	2%	4%	17%	1%
Field of Study							
General Arts & Science	22	-	-	-	-	-	-
Education	569	**67%**	1%		3%	8%	2%
Fine & Applied Arts	76	16%	3%		3%	1%	9%
Humanities	331	**26%**	1%		1%	5%	10%
Social Sciences	731	11%	2%	1%	18%	4%	11%
Commerce & Administration	599	2%	7%		2%	**13%**	**14%**
Agricultural & Biological Sciences	317	**14%**	3%		2%	2%	9%
Engineering & Applied Sciences	282	3%	3%			5%	1%
Health Professions	343	3%		**53%**		1%	1%
Mathematics & Physical Sciences	254	**20%**	**40%**			2%	3%
Information Technology	202	10%	**57%**			4%	2%
Prior Level of Education							
High school diploma	1,939	14%	6%	4%	4%	4%	9%
PSE below Bachelor's degree	590	12%	5%	**14%**	6%	5%	8%
Bachelor's degree or above	992	**35%**	3%	2%	5%	**9%**	2%

- cell size too small for reliable analysis

Not shown in Table:

- Engineering & Applied Sciences - 50% employed as Engineers, 13% in Technical Occupations in the Natural and Applied Sciences
- Commerce & Administration - 16% employed in Finance/Accounting occupations
- Agricultural & Biological Sciences - 20% employed in technical occupations in Health or Natural & Applied Sciences; 10% in Health Professions other than Nursing

Looking at the top three occupations for each level of education prior to enrolling in 1999 studies, we see some interesting differences:

Prior Level of Education

- *High school diploma*
  Teachers and Professors - 14%
  Administrative/Clerical - 9%
  Computer Programmers/Analysts - 6%

- *Postsecondary education below a Bachelor s degree*
  Nurses - 14%
  Teachers and Professors - 12%
  Administrative/Clerical - 8%

- *Bachelor s degree or above*
  Teachers and Professors - 35%
  Health Professionals (excluding Nurses) - 10%
  Managers - 9%

Graduates who came to their 1999 studies with a Bachelor's degree or above were more than twice as likely as those with lower levels of prior education to say they had a teaching position. This is likely due to the fact that, in many cases, the Bachelor of Education degree is a second degree, with an admission requirement of a prior Bachelor's degree.

It is also interesting to note that Nursing, not Teaching, is the top occupation of those graduates who entered their 1999 studies with postsecondary education below a Bachelor's degree.

Type of Business, Industry or Service

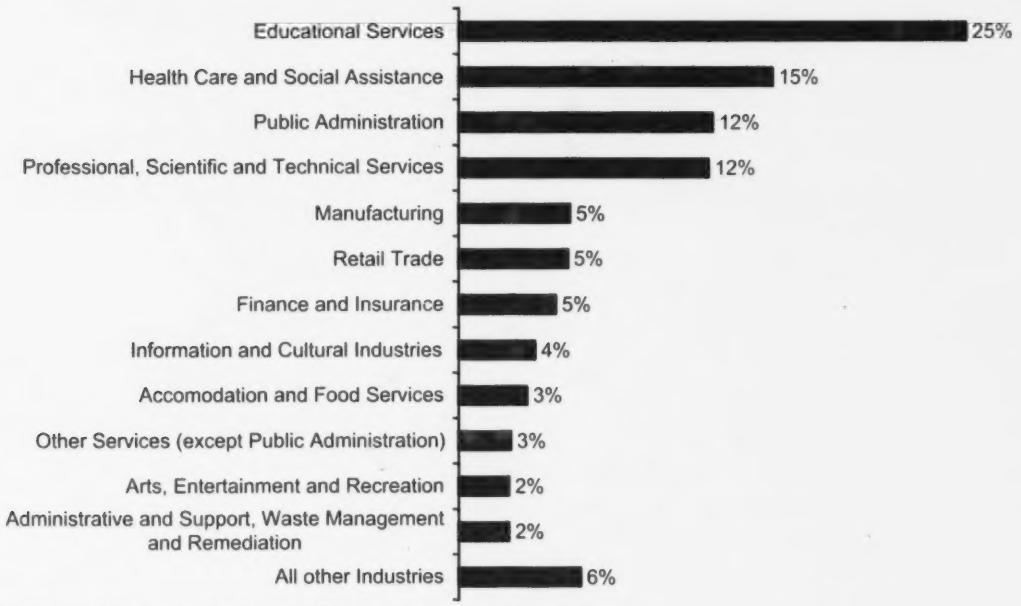
Correlated with the top occupations are the top business/industry types: Educational Services employ 25% of all employed graduates; Health Care and Social Assistance, 15%; Public Administration, 12%; and Professional, Scientific and Technical Services, 12% (Figure 3.7).

Figure 3.7

Type of Business, Industry or Service* Among Employed Graduates

"In what type of business, industry or service did you work?"

(n=3,527)


Educational Services 25%
Health Care and Social Assistance 15%
Public Administration 12%
Professional, Scientific and Technical Services 12%
Manufacturing 5%
Retail Trade 5%
Finance and Insurance 5%
Information and Cultural Industries 4%
Accomodation and Food Services 3%
Other Services (except Public Administration) 3%
Arts, Entertainment and Recreation 2%
Administrative and Support, Waste Management and Remediation 2%
All other Industries 6%

*See http://www.statcan.ca/english/concepts/industry.htm for coding information

Joblessness Since 1999 Graduation

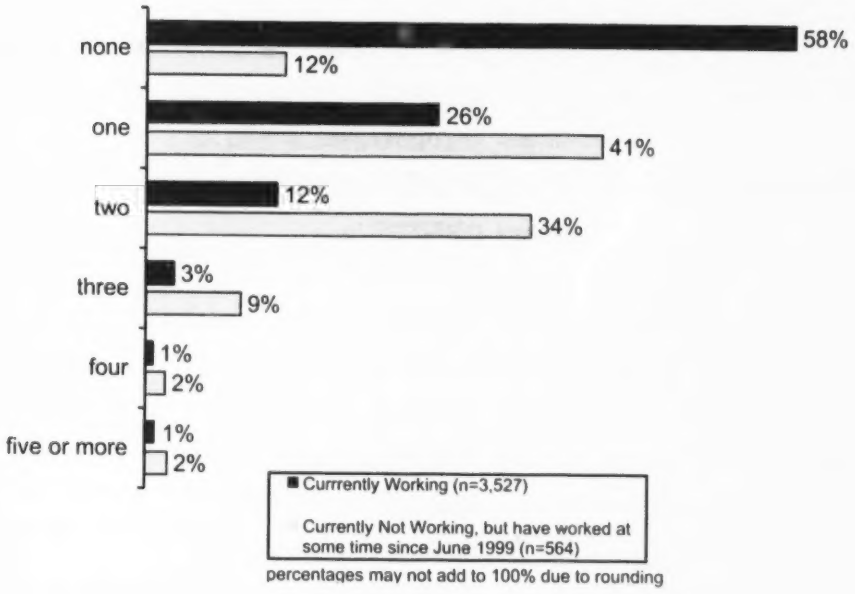
Even though the unemployment rate for the reference week was very low (7.2%), many graduates still said they had experienced periods of joblessness since they graduated. Nearly half (48%) of all respondents reported having had at least one period of unemployment since graduating, and one-in-five reported two or more periods of joblessness. There was some variation among the Maritime provinces (residence in 2001) in the proportion reporting periods of joblessness (New Brunswick: 44%, Nova Scotia: 46% and Prince Edward Island: 49%); and graduates living outside the region in 2001 were the most likely (54%) to say they had at least one period of joblessness.

The frequency of joblessness was lowest among those who were employed in the reference week. In fact, more than half (58%) reported that they had never been out of work, and only 17% said they had been out of work more than once (Figure 3.8)

Figure 3.8

Joblessness Since Graduation

Number of Separate Periods Without a Job Since June, 1999



percentages may not add to 100% due to rounding

The same is not true for those who were not working during the reference week, but had held at least one job since graduating - their joblessness was largely part of a continuing pattern. While 41% had experienced one period of joblessness, another 47% had been without a job at least twice. Curiously, 12% of graduates who were not working when contacted for this study said they had not experienced any periods of time since 1999 when they were without a job.

A graduate's field of study has a large influence on his or her employment patterns. Looking at the class as a whole, graduates of programs in the Fine & Applied Arts (73%), Humanities (65%) and Agricultural & Biological Sciences (63%) were the most likely to report that they had been without work at least once since graduating. Least likely to report having had periods of joblessness were graduates of Health Professions programs (19%).

The more highly educated the respondent, the less likely he or she was to have had any periods of joblessness: over half (54%) of Bachelor's graduates and just 20% of Master's/Doctorate graduates reported experiencing at least one period when they were unemployed.

Reasons for Not Working

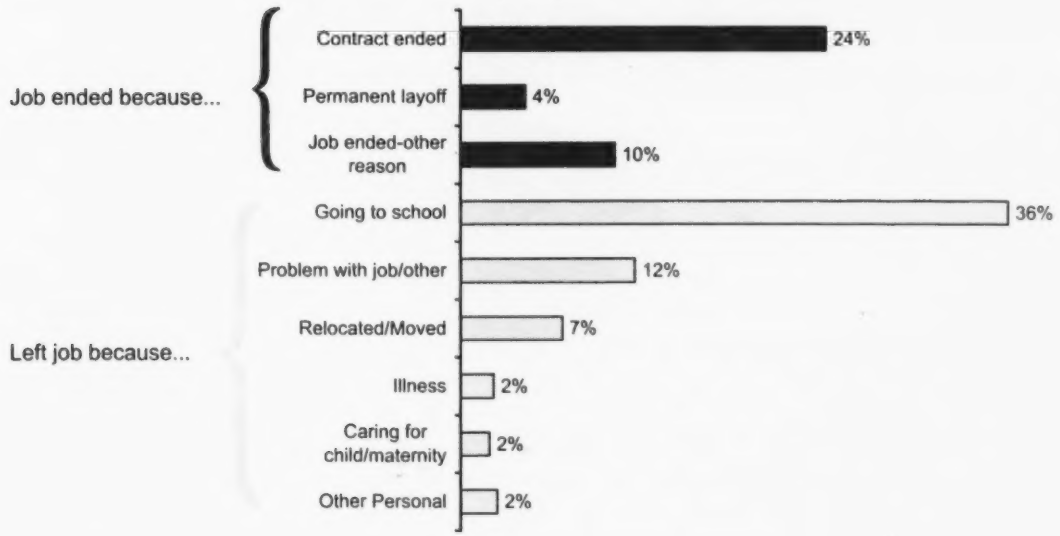
During the interview, graduates who were not working in the reference week, but who had reported having had at least one job since they graduated, were asked about the reasons behind their current non-working status. The reasons given may be divided into two main categories: those which relate to the termination of a job and those which relate to voluntarily leaving a job. Figure 3.9 summarizes their responses.

Figure 3.9

Reasons for Current Non-Working Status:

"What is the main reason you are no longer in this job?"

(n=369)



The slight difference in proportion between the two classes may relate to the greater amount of time between graduation and interview, allowing more graduates to make the decision to return to school.

When taken together, slightly more (38%) graduates said they were not working because of a reason beyond their control: either a contract ended (24%), they were permanently laid off (4%), or their job ended for another reason (10%). Among graduates of the Class of 1996, 32% gave this type of reason for not working four years after graduation.

Still another 12% of respondents (Class of 1999) said they were not working due to some kind of problem with their job; when probed on this response, graduates gave reasons such as low pay, lack of job security, no opportunity for advancement or working conditions.

3.2 Relatedness of Job and Education

Importance That Job Be Related To Studies

Given the time and money they invested in completing their 1999 program, it is hardly surprising to find that the overwhelming majority (85%) of respondents said that they thought it was important or very important that any job they get be related to their field of study (Figure 3.10). Relatively few (15%) believed that getting a job related to their education was not very, or not at all important.

Figure 3.10

Importance of Job Being Related to Program

"How important is it that any job you get be related to your field of study?"

(n=4,202)

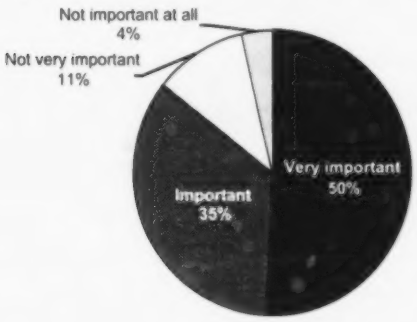


Table 3.5 illustrates the degree of influence of various factors, including degree, field of study and gender, on a graduate's tendency to say that any job they get should be related to their field of study.

Graduates of Education and Health Professions programs seemed to value this link the greatest (only 6-7% said it was not important to get a related job), which likely reflects the applied nature of their programs. Maintaining a strong link between work and education was least crucial for graduates of Humanities, nearly one-quarter (23%) of whom said having a related job was not important. Following a close second were graduates of Agricultural & Biological Sciences and Social Sciences with 20% of graduates in each field saying having a job related to their field was not important.

Those who have earned advanced or second degrees valued the link between work and education to a greater extent. While 9% of those who entered their 1999 studies with at least a Bachelor's degree said getting a related job was not important, more of those who entered with no prior postsecondary education (i.e., enrolled with a high school diploma) (19%) reported the same.

There was nearly a 10 percentage-point difference in the number who valued the link between work and education based on the language spoken most often at home: 93% of French-speaking and 84% of English-speaking graduates thought it was important.

Table 3.5

Importance of Job Being Related to Program Among Employed Graduates			
	weighted base	Important[1]	Not Important[2]
Overall	3,527	85%	14%
Gender			
Male	1,420	82%	18%
Female	2,106	88%	12%
Language spoken most often at home			
English	3,069	84%	16%
French	363	**93%**	7%
Degree Level			
Bachelor's degree	2,687	84%	16%
First Professional	130	**94%**	6%
Diploma/Certificate	231	91%	8%
Master's/Doctorate	478	90%	11%
Field of Study			
General Arts & Science	22	-	-
Education	570	**93%**	7%
Fine & Applied Arts	76	86%	14%
Humanities	332	77%	23%
Social Sciences	733	80%	20%
Commerce & Administration	599	86%	14%
Agricultural & Biological Sciences	317	80%	20%
Engineering & Applied Sciences	282	88%	12%
Health Professions	343	**94%**	6%
Mathematics & Physical Sciences	254	85%	15%
Information Technology	202	88%	12%
Level of Prior Education			
High school diploma	1,940	81%	19%
PSE below Bachelor's degree	591	89%	11%
Bachelor's degree or above	993	**91%**	9%

[1] Important = responses "important" + "very important"
[2] Not important = responses "not at all important" + "not very important"
- cell size too small reliable analysis

Province of graduation did not have a significant influence on a graduate's perception of the importance of having a job related to their field of study.

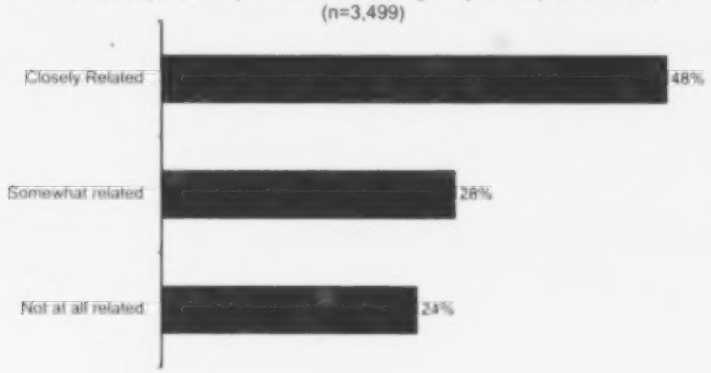
Do Graduates Have Jobs Related to Their Field of Study?

Whether or not graduates think it is important that their job be related to their field of study is one thing; whether or not they were actually successful in finding related work is quite another. The findings are somewhat mixed: a greater proportion (24%) said their job in the reference week was not at all related than the proportion who claimed having a related job was not important (14%). Nevertheless, nearly half (48%) reported having a job in the reference week that was closely related, and a further 28% said their job was somewhat related (Figure 3.11).

Figure 3.11

Relationship of Job to Program Among Employed Graduates

"How closely was this job related to the program you completed in 1999?"
(n=3,499)



Excludes "don't know" responses

These findings are somewhat similar to the trend observed among graduates of the Class of 1995. Two years after graduation, 43% of employed graduates said their job was closely related, 25% said it was somewhat related, and 26% said it was not at all related.

Findings from the surveys of the Class of 1996 showed that, one year after graduation, 49% of these graduates said their job was directly related; four years after graduation, that proportion had increased to 53%. On the other end of the scale, the proportion saying that their job was not at all related decreased from 30% one year out, to 20% four years out.

Looking at the relationship between their ideal situation and their actual situation, we find that 63% of employed 1999 graduates who thought it was very important to have a related job also reported having a closely related job in the reference week, while just 17% who thought it either not at all or not very important said they had a closely related job.

Survey findings show (Table 3.6) that a considerable advantage is gained in the job market if a graduate is a Francophone: while 60% of French-speaking graduates said that their job was closely related to their field of study, less than half (46%) of employed Anglophone graduates were in the same situation.

Table 3.6

Job Related to Field of Study? Among employed graduates				
	weighted base	Closely	Somewhat	Not at all
Overall*	3,502	48%	28%	24%
Gender				
Male	1,415	45%	31%	24%
Female	2,088	49%	26%	24%
Language spoken most often at home				
English	3,048	46%	29%	25%
French	360	60%	23%	17%
Degree Level				
Bachelor's degree	2,668	43%	29%	28%
First Professional	130	88%	8%	5%
Diploma/Certificate	229	52%	29%	19%
Master's/Doctorate	475	61%	27%	12%
Prior Level of Education				
High school diploma	1,924	37%	30%	**33%**
PSE below Bachelor's degree	588	53%	30%	17%
Bachelor's degree or above	988	**66%**	22%	12%

*missing=24

The amount of educational experience also plays an important role in one's success in finding related work. Just over one-third (37%) of graduates who entered their 1999 studies with a high school diploma, and for whom the 1999 degree represented the first postsecondary credential, were working in a closely related job in the reference week. By contrast, those graduates who had completed at least a Bachelor's degree before enrolling in their 1999 studies, were much more likely to succeed in finding related work. Two-thirds (66%) of these graduates reported that their job was closely related to their field of study.

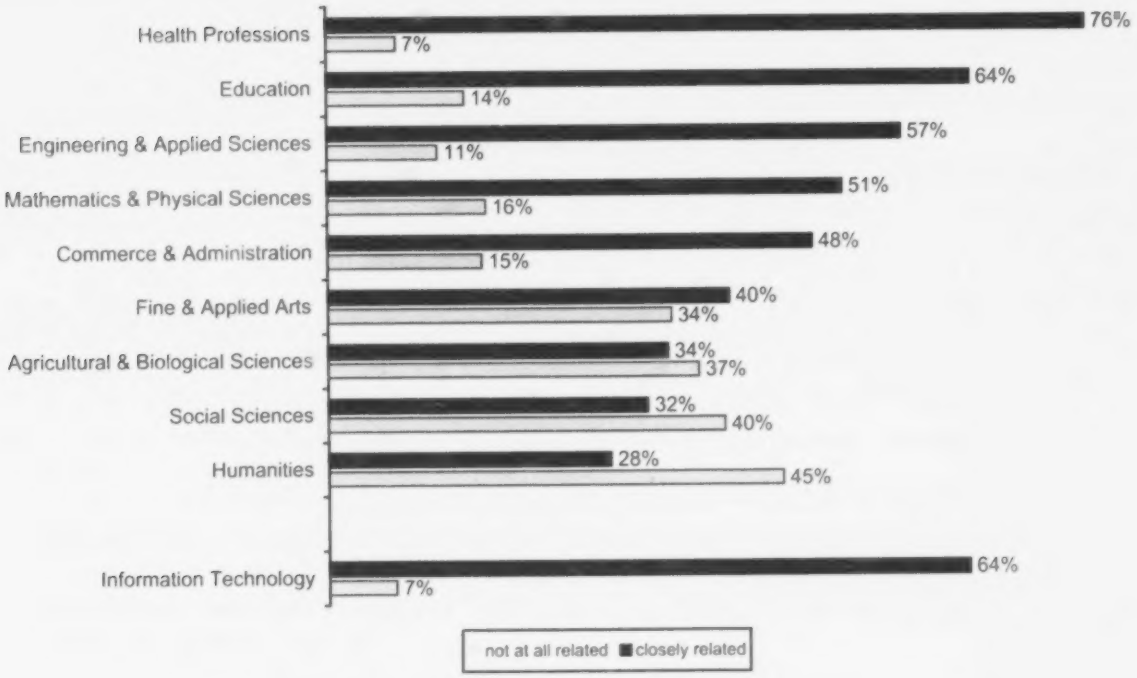
Success in finding work related to one's program is also strongly correlated with field of study (Figure 3.12)

Among those most successful in finding closely related work were graduates who completed a program in the Health Professions (76%), Education (64%) and Engineering & Applied Sciences (57%), reflecting the applied nature of their programs. Among the least successful were graduates who studied in fields less applied in nature: nearly half of all employed Humanities (45%) graduates said their job was not at all related to their field of study; 40% of Social Sciences and 37% of Agricultural & Biological Sciences graduates also reported their job was not at all related.

There was no significant difference among the provinces (of graduation) and the degree of relatedness between job and education.

Figure 3.12

Proportion Working in Fields Related to Program - by Field of Study
Among Employed Graduates
(n=3,481)

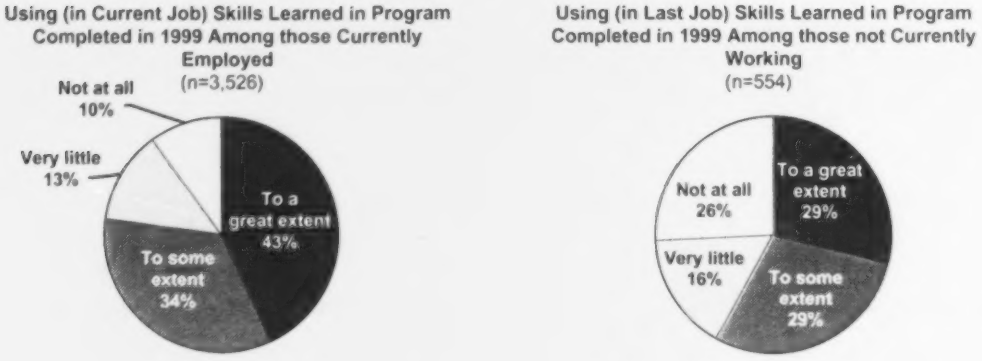


Note: Proportion Reporting "somewhat related" not shown

Are graduates using skills they learned from their educational program completed in 1999?

Another measure of the relationship between the program completed and employment is the extent to which skills learned as a result of the program are being used. Although the great majority of employed graduates reported that they were using their program skills at least to some extent (77%), those who were not working in the reference week were less likely to say this: 58% said they used their skills to some or a great extent in their last job (Figure 3.13). In fact, the proportion who said "not at all" when asked about their use of program skills was much greater among those currently not working (26%) than those who were employed (10%).

Figure 3.13


Using (in Current Job) Skills Learned in Program Completed in 1999 Among those Currently Employed (n=3,526)
Not at all 10%
Very little 13%
To a great extent 43%
To some extent 34%
Using (in Last Job) Skills Learned in Program Completed in 1999 Among those not Currently Working (n=554)
Not at all 26%
To a great extent 29%
Very little 16%
To some extent 29%

Some of the same factors at play in determining one's success in finding a related job also emerge here. For example, Health Professions (70%) and Mathematics & Physical Sciences (50%) were most likely to report they were using their program skills to a great extent. Agricultural & Biological Sciences (33%), Humanities (31%) and Social Sciences (31%) graduates were the least likely to report this. In fact, one-in-five Agricultural & Biological Sciences graduates said they were not using their skills at all.

While language had no bearing on skill use, a graduate's level of education did. Among those reporting that they used their program skills to some or a great extent were 74% of Bachelor's graduates, 96% of First Professional graduates, and 76% of Diploma/Certificate graduates. Falling just over mid-way were 89% of graduates who had obtained a Master's or Doctorate.

In addition, seven-in-ten graduates who entered their 1999 studies with a high school diploma reported using their program skills to at least some extent, while 88% of those who had entered with at least a Bachelor's degree reported the same level of skill use.

There was no significant variation, by province of graduation, in the proportion of graduates reporting they were using their skills to some or a great extent.

How Do Skills Use and Job Relatedness to Field of Study Affect Job Satisfaction?

The table below (Table 3.7) illustrates that among graduates working full-time, the more closely related their job is to their field of study, and the more they are putting their university skills to use, the higher their job satisfaction. In fact, the relationship between skills use and job satisfaction appears to be at least as strong as the link between earnings and job satisfaction.

Table 3.7

Job satisfaction among employed graduates working full-time

	weighted base	Very satisfied	Satisfied	Dissatisfied	Very dissatisfied
Was job related to field of study?					
Closely related	1,776	**53%**	43%	4%	< 1%
Somewhat related	1,071	41%	53%	7%	< 1%
Not related	1,026	31%	47%	15%	6%
Degree to which using skills from educational program?					
To great extent	1,659	**55%**	41%	3%	
Some extent	1,379	42%	52%	6%	1%
Very little	536	30%	50%	18%	3%
Not at all	507	27%	45%	18%	10%
Range of weekly wages					
$500 or less	1,454	32%	52%	12%	4%
$501 - $700	854	43%	49%	7%	1%
$701 - $900	674	51%	43%	6%	1%
$901- $1,250	510	52%	43%	3%	1%
more than $1,250	202	**58%**	40%	2%	

Don't know/refused responses not included

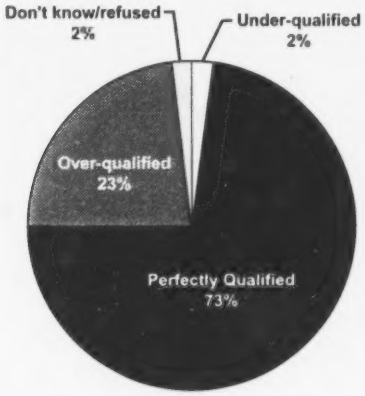
There was no significant variation in the degree of job satisfaction with province of residence in 2001 or with gender.

Do Graduates Feel Qualified for Their Job?

Given the mixed reports of graduates on their extent of skill use, degree of relatedness of their job to their field of study and the importance they attach to having a related job, we might expect a certain number to feel over-qualified for their job. In fact, the findings show that nearly one-quarter (23%) of employed respondents thought that they were over-qualified (Figure 3.14). However, just under three-quarters (73%) found their job to be a perfect match, saying that they were perfectly qualified for their job. Just two percent felt they were under-qualified.

Figure 3.14

Qualification for Employment Among Employed Graduates
(n=3,526)



Among those most likely to say they were over-qualified were those who had obtained a Bachelor's degree (25%), Fine & Applied Arts (37%) and Agricultural & Biological Sciences (28%) graduates, and those who had entered their 1999 studies with a high school diploma (27%). Among those least likely to report feeling over-qualified were graduates of First Professional programs (7%), and Health Professions graduates (8%).

Qualification for employment did not vary significantly by province of graduation, but there were some differences by province of residence in 2001 in the proportion of all graduates feeling over-qualified or perfectly qualified. Somewhat more likely to report being over-qualified (29%) for their employment were graduates living in Nova Scotia (69% reported being perfectly qualified).

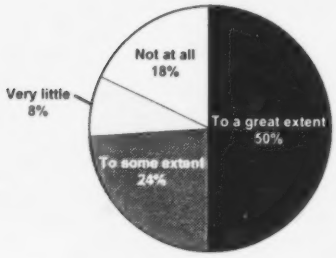
Sixty-one percent of members of the Class of 1996 interviewed four years after graduation reported they felt perfectly qualified for their job. Given that the Class of 1999 was surveyed two years after graduating, the 12 percentage point increase in the proportion who felt qualified is encouraging news for the overall success of the Class.

Did Education Help Graduates Obtain their Job?

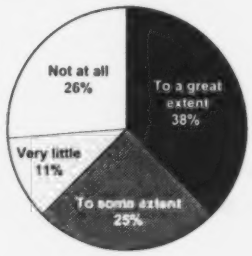
Half of all employed graduates are convinced that their educational program helped them obtain their current job (Figure 3.15), and a further 24% said it helped them to some extent. However, just over one-quarter (26%) thought their program helped very little or not at all.

Figure 3.15

Extent Educational Program (Completed in 1999) Helped to Obtain Job - Among those Currently Employed
(n=3,527)



Extent Educational Program (Completed in 1999) Helped to Obtain Last Job - Among those not Currently Working
(n=554)



Those who were not working during the reference week were not so positive. Over one-third (37%) said that their education program did very little or nothing at all to help them find their last job. Nevertheless, it is interesting to note that 38% of these graduates believed their program helped them to a great extent to obtain their last job. This proportion is 12 percentage points less than those who were employed. About the same (25%) proportion said their education had helped them to some extent.

How do these responses compare to those of the Class of 1996? Even four years after graduation, the breakdown of responses was very similar for both groups of graduates (employed and not working).

Advanced education and programs focussing on applied or professional knowledge increase the likelihood that graduates would say their education had helped them find a job. Ninety-four percent of First Professional graduates, 89% of Engineering & Applied Sciences and 87% of Health Professions graduates said their education helped them to find a job to some or a great extent. In comparison, two-thirds (64%) of Social Sciences graduates and 74% of those with a Bachelor's degree reported their education had helped them to some or a great extent.

Graduate responses with regard to the degree to which their educational program helped them to obtain a job did not vary significantly by province of graduation.

Impact of Having a Job Related to Studies on Valuing Education

Generally speaking, having a rewarding job increases the likelihood that a graduate will place a higher value on their education (Table 3.8). Furthermore, this influence seems to be slightly stronger with respect to the value placed on the financial investment.

Table 3.8

Value Placed on University Education Based on Whether Job is Related to Program and Skills Learned are Being Used Among Employed Graduates		% Who say Education was Well Worth the...	
	weighted base	Financial Investment	Personal Investment of Time
Overall	3,527	47%	51%
Was job related to field of study?			
Closely	1,666	**58%**	**60%**
Somewhat	973	40%	44%
Not at all Related	849	**33%**	**41%**
Degree to which using skills acquired from educational program?			
To a great extent	1,509	**62%**	**65%**
To some extent	1,206	40%	44%
Very little	442	29%	34%
Not at all	357	**28%**	**36%**

In order to emphasize significant variations, only the "Well worth it" responses are shown
Don't know responses not included

Among employed graduates who reported that their job was closely related to their field of study, well over half (58%) said their financial investment was well worth it. Sixty percent of these graduates also placed the same value on their personal investment of time. Far fewer of those whose job was not at all related were likely to think their investments of money (33%) and time (41%) were well worth it.

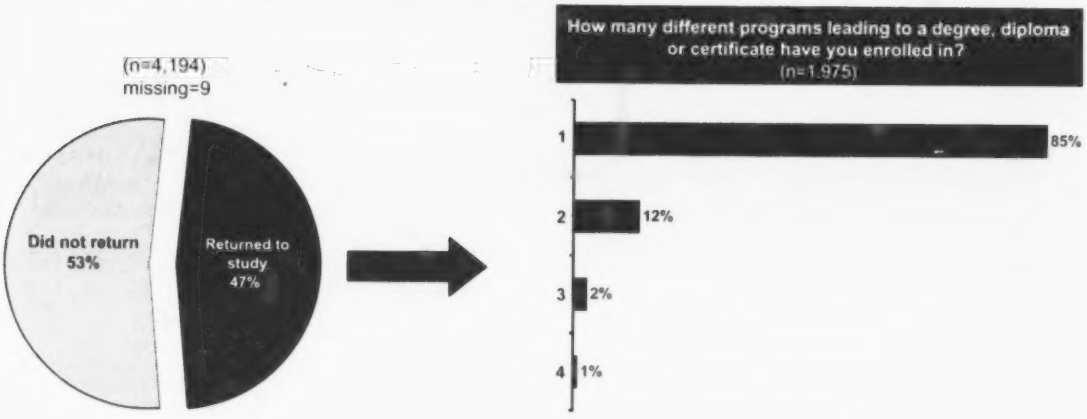
This trend holds when considering the degree of skill usage. The majority of those who said they were using their program skills to a great extent attached high value to their financial (62% said it was well worth it) and time (65% said it was well worth it) investments. Those who reported that they were not using their skills at all were much less likely to think their investments had been well worth it - less than one-third (28%) said their financial investment had been well worth it and 36% placed the same value on their personal investment of time.

3.3 Post-1999 Studies

For many graduates, the degree obtained in 1999 was a stepping stone to further study. Within two years of graduating, nearly half (47%) of all graduates had enrolled in at least one program leading to a degree, diploma or certificate (Figure 3.16). While the vast majority of those who had returned to study said they had taken one program since graduating, the remaining 15% had taken two or more.

Figure 3.16

Returning to Study Following 1999 Graduation



While the proportion of graduates of Nova Scotia (47%) and New Brunswick (46%) universities returning to study was not significantly different, Prince Edward Island graduates (57%) were more likely to return to study.

Looking at the Class as a whole, two-in-ten (21%) of all graduates reported that they had completed at least one program since graduating.

As may be expected, the likelihood that a graduate would decide to go back to school really depended to a great extent on the amount of education and the number of postsecondary credentials they had already earned (Table 3.9). For a large proportion of respondents, the degree obtained in 1999 was either not their first or it was not the first time they had enrolled in a postsecondary education program. Not surprisingly, these graduates were less likely to have said they went back to school. Respondents who began their 1999 studies with no prior postsecondary education (high school diploma) went back to school in much greater numbers: 58% said they had returned, more than double the proportion of the "Bachelor's degree or above" group (27% who went back to school).

The high school diploma group (26%) was also more than twice as likely as the "Bachelor's degree or above" group (11%) to have completed at least one program since graduating.

Probably because they had already obtained advanced degrees, graduates of First Professional and Master's or Doctoral degrees were among the least likely (28%) to say they had taken a program since graduating. In comparison, 52% of Bachelor's degree graduates said they had returned to school.

As with the probability that graduates were using the skills from their education and had a job related to their field of study, the decision to acquire further education was also strongly influenced by field of study. Those graduates most likely to have returned had completed programs in Agricultural & Biological Sciences (66%) and Humanities (64%); those least likely to have returned were graduates in Education (31%) and Health Professions (30%).

Language was also a factor: while 40% of French-speaking graduates had gone on to further education, somewhat more Anglophones (48%) reported they had returned to school. This may be related to the fact that a greater proportion of Francophones had obtained

Table 3.9

Education Experience Since 1999 Graduation Among all Graduates

	weighted base	% Returned to study for a degree, diploma or certificate	% Completed at least one program since graduating in 1999
Overall	4,194	47%	21%
Gender			
Male	1,704	48%	21%
Female	2,490	46%	21%
Language spoken most often at home			
English	3,656	**48%**	**22%**
French	409	40%	14%
Degree Level			
Bachelor's degree	3,246	**52%**	**24%**
First Professional	146	28%	12%
Diploma/Certificate	272	43%	16%
Master's/Doctorate	531	28%	10%
Field of Study			
General Arts & Science	25	-	-
Education	625	**31%**	15%
Fine & Applied Arts	105	46%	21%
Humanities	439	64%	**35%**
Social Sciences	894	54%	27%
Commerce & Administration	663	43%	21%
Agricultural & Biological Sciences	442	**66%**	22%
Engineering & Applied Sciences	325	35%	13%
Health Professions	365	30%	13%
Mathematics & Physical Sciences	311	51%	17%
Information Technology	229	25%	11%
Prior Level of Education			
High school diploma	2,407	**58%**	**26%**
PSE below Bachelor's degree	672	41%	22%
Bachelor's degree or above	1,109	27%	11%

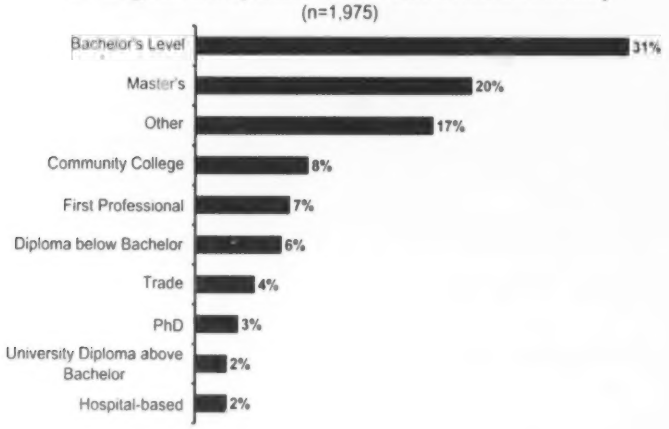
Don't know/refused responses not included

Graduates who chose to return to school took advantage of a variety of program types (Figure 3.17), but most (69%) of them returned to study at the university level. A further 12% chose to go take a Community College or trades training program. Two percent took a hospital-based program.

Figure 3.17

Level of Study in Post-1999 Period in Program Completed or Enrolled in Most Recently

(n=1,975)



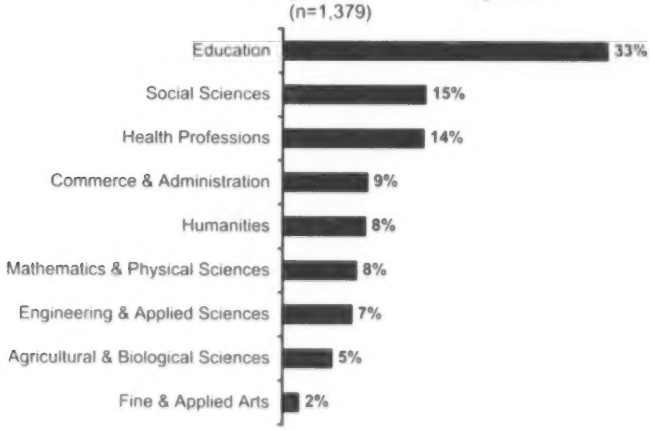
Many graduates who returned to school took the opportunity to upgrade their level of education, with 21% of Bachelor's graduates pursuing a Master's level program, and 23% of Master's graduates going on to Doctoral level studies. However, a good proportion of graduates did return to the same level of study: 32% of those who had obtained a Bachelor's degree in 1999 went on to enrol in a subsequent Bachelor's degree.

Figure 3.18 shows the distribution of post-1999 programs by field of study for those who returned to study at a degree-granting institution.

Figure 3.18

Post 1999 Field of Study - Among Graduates who Returned to Study at the University Level

(n=1,379)



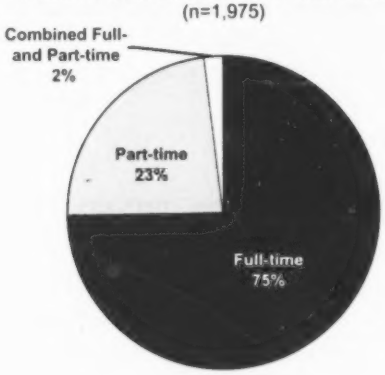
Education was the most popular field of study among those who returned to study at a university, with one-third making this choice. Programs in the Social Sciences (15%) and Health Professions (14%) were also popular choices.

Full-time or Part-time Studies in Post-1999 Period

For the most part, graduates who chose to return to school did so on a full-time basis (75%). However, 23% did pursue their post-1999 studies on a part-time basis, and a further 2% combined full-time and part-time studies (Figure 3.19).

Figure 3.19

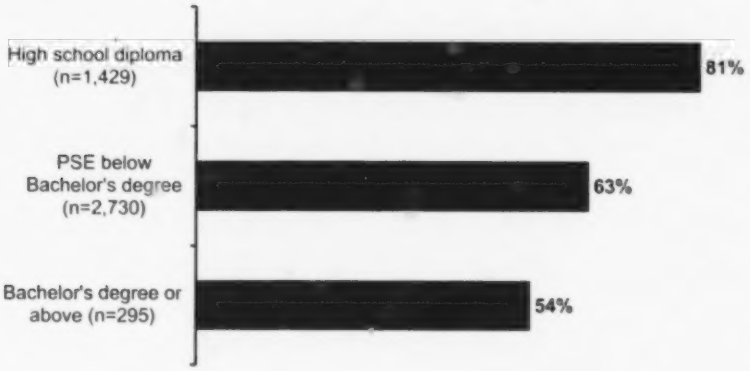
Full- or Part-time Post-1999 Studies
(n=1,975)



Whether or not a graduate attended their post-1999 program full-time depended to a great extent on their level of education (Figure 3.20). Graduates whose 1999 degree was their first postsecondary credential (i.e., entered their 1999 studies with a high school diploma) were the most likely (81%) to return to school full-time. Those who entered their 1999 studies with at least a Bachelor's degree were the least likely to return on a full-time basis (54%).

Figure 3.20

Percent Attending Post-1999 Education by Highest Level of Education Prior to Enrolling in 1999 Studies

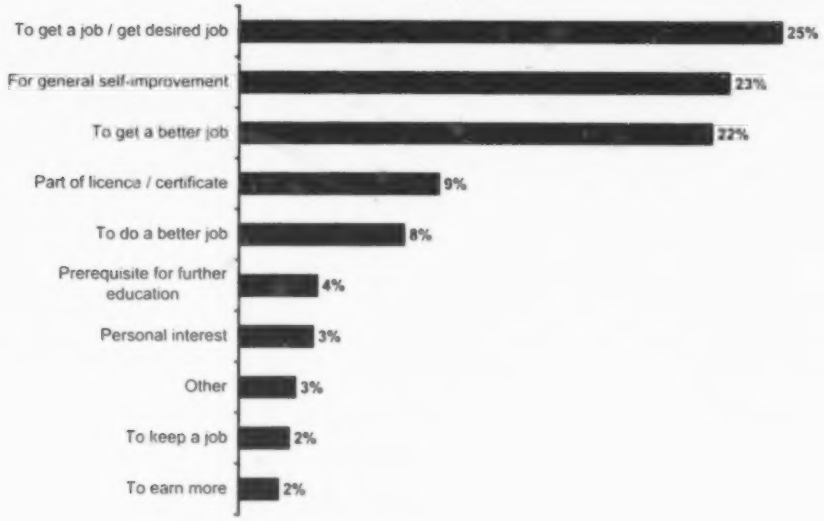


Reason for Pursuing Post-1999 Studies

Following the trend of previous graduating classes, most members of the Class of 1999 (59%) who chose to go on to further study did so for employment-related reasons (Figure 3.21).

Figure 3.21

Reason for Return to Study
(n=1,975)



In fact, one-quarter (25%) of returning graduates said that their reason for doing so was to find a job. Graduates more inclined to cite this reason had completed programs in Humanities (37%), Agricultural & Biological Sciences (32%), and Social Sciences (30%) in 1999. Those who had entered their 1999 studies with no prior postsecondary education were more than twice as likely (29%) as those who had entered their 1999 studies with at least a Bachelor's degree (14%) to say they returned to study in order to get a job.

The next-most-important job-related reasons given were "to get a better job" (22%), and "to do a better job" (8%).

Not all graduates were motivated by labour market considerations, however. Twenty-three percent said they returned to study following their 1999 graduation for reasons of general self- improvement.

Interestingly enough, among those graduates who said that learning skills for a particular job was either not at all or not very important when they enrolled in their 1999 program, and who returned to study (n=346), nearly half (48%) said that the reason they returned to study was either to get a job or to get a better job.

3.4 Graduate Mobility

Graduate Mobility on a Regional Basis

While the majority (80%) of all graduates of the Class of 1999 were originally from the region, the remaining 20% were living outside the region before enrolling. This proportion is slightly greater than that recorded for the Class of 1996 (1997 survey results), where 18% of all graduates were originally from outside the region.

Table 3.10 illustrates graduate mobility on a regional scale.

Table 3.10

		Residence 2001	
	weighted base	Maritimes	Outside Maritimes
Residence 12 months prior to enrolling			
Maritimes	3,362	**78%**	22%
Outside Maritimes	839	29%	**71%**

The majority (78%) of graduates who were living in the Maritimes prior to enrolling in their 1999 studies were also living there at the time of the interview. However, the proportion remaining following graduation appears to have decreased in comparison with the trends set by the Class of 1996.

One year after graduating, 90% of the Class of 1996 were living in the region; by four years following graduation, this proportion had dropped to 81%. The proportion of the Class of 1999 (two years out) who were originally from the Maritimes and remaining in the region was smaller than the proportion of the Class of 1996 *four years* after graduation.

What is the magnitude of the change in mobility patterns? Assuming a steady exodus pattern, we can estimate (based on the Class of 1996 longitudinal data) that between one and four years after graduating, nine percentage points were lost, or three per year. Thus, the expected proportion of graduates originally from the region remaining two years after graduation (Class of 1996) would have been 87%. This estimate corresponds closely to the mobility patterns observed in the Class of 1995 interviewed in 1997 (National Graduate Survey), where 89% of those originally from the Maritimes (residence 12 months prior to enrolling) were living there two years after graduating.

Therefore, the proportion of graduates (Class of 1999) originally from the region and remaining two years after graduation is *down by nine percentage points* from the estimate for the Class of 1996. It seems then, that the flow of highly skilled, highly educated people from the region has stepped up.

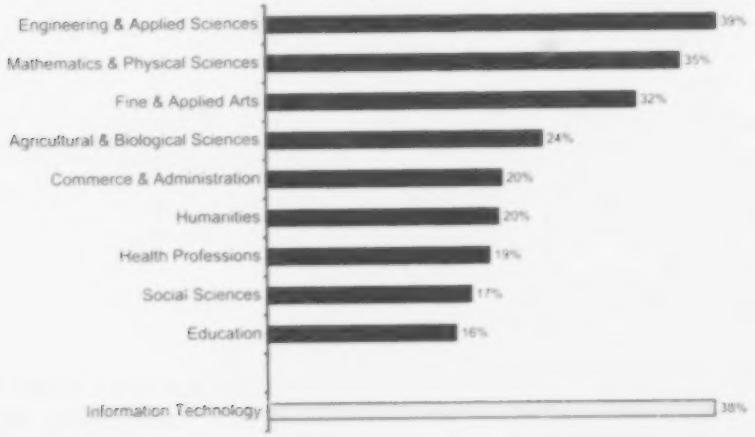
As with the Class of 1996, the findings from this survey show that men were more likely than women to have left the region after graduation. Overall, 19% of female and 26% of male 1999 graduates originally from the Maritimes were living outside the region in 2001, a difference of 7 percentage points. By comparison, 17% of female and 24% of male 1996 graduates originally from the Maritimes were living outside the region in 2000.

Furthermore, particular fields of study have been hit harder than others. Figure 3.22 shows the distribution of original Maritime residents not living in the region two years following graduation.

Figure 3.22

Proportion of Original Maritime Residents Living Outside the Region Two Years After Graduation, by Field of Study

(n = 3,362)



Similar to the findings of previous surveys (MPHEC's Class of 1996 in 2000 and Statistics Canada's National Graduate Survey - Class of 1995 in 1997), those graduates most likely to have left the Maritimes completed programs in Engineering & Applied Sciences (39%) and Mathematics & Physical Sciences (35%). Looking at a different grouping of graduates, those identified as having completed an Information Technology related program (38%) were also among those most inclined to leave. However, the reader should recall that there is significant overlap between Information Technology and the fields of Mathematics & Physical Sciences and Engineering & Applied Sciences (Appendix 1). Those least likely to leave were graduates of Education programs (16%).

Nearly two-in-ten (19%) Health Professions graduates originally from the region were living outside the Maritimes in 2001. Nursing graduates, the largest group within the Health Professions, had a mobility pattern somewhat different from the group overall - 10% were living outside the region in 2001. Although there are too few graduates of the other majors (i.e., Medicine, Dentistry, Physiotherapy, etc.) within the Health Professions to estimate a reliable pattern, the general trend among them seems to indicate a proportion higher than that of the overall group leaving the region within two years of graduation.

The same trends observed among the fields of studies at the regional level also occur at the provincial level.

Graduate Mobility on a Provincial Basis

Is any particular province faring worse than the others, or is the situation generally the same throughout the region? As shown in the table below (Table 3.11), movement of graduates out of their home province is greatest among those originally from Prince Edward Island. Looking at the province of residence 12 months prior to beginning studies leading to the 1999 degree, we see that of those graduates who were originally from Prince Edward Island, 67% completed their 1999 degree in their home province, by two years after graduation, the proportion residing in Prince Edward Island had decreased slightly to 63%.

Table 3.11

Mobility of Graduates Based on Province of Residence Prior to Enrolling

		Province of Study, 1999			Province of residence, 2001			
	weighted base	PEI	NS	NB	PEI	NS	NB	Outside Maritimes
Province of residence 12 months prior to enrolling								
PEI	206	**67%**	20%	14%	**63%**	14%	3%	19%
NS	1,923	1%	**92%**	7%	1%	**73%**	3%	23%
NB	1,233	1%	14%	**85%**	1%	7%	**71%**	22%
Outside Maritimes	839	3%	**70%**	27%	1%	20%	8%	**71%**

While the proportion of New Brunswick (71%) and Nova Scotia (73%) residents remaining in their home province two years after graduating was comparable, it should be noted that more New Brunswickers (15%) than Nova Scotians (8%) had left their home province to go to school to begin their 1999 studies.

The most popular destinations (province of residence in 2001) of those graduates originally from a Maritime province leaving the region (n=742) were:

- Ontario - 50%
- United States - 14%
- Alberta - 12%
- Quebec - 8%
- British Columbia - 7%

At the provincial level, this distribution is largely similar, with New Brunswick residents most likely to go to Quebec (16%) after Ontario (50%). They are also somewhat less likely to have gone to British Columbia (3%). In addition, those originally from Nova Scotia are somewhat less likely to have gone to Quebec (3%). The sample of Prince Edward Island residents (n=40) is too small for reliable analysis, however, the distribution seems to follow the overall regional trend.

Those graduates who came to study in the Maritimes from outside the region, for the most part, studied at an institution in Nova Scotia (70%). Over one-quarter went to a New Brunswick university (27%), and 3% studied in Prince Edward Island. Once they completed their 1999 studies, these graduates tended not to remain (71%) in the region. Nevertheless, well over one-quarter (29%) did stay, mostly in Nova Scotia.

Regardless of this influx of people from outside the Maritimes, there was still a 15% net outflow of graduates from the region (see equation below):

$$\frac{752 \text{ original Maritime residents living outside region} - 243 \text{ originally from outside region and living in the Maritimes in 2001}}{3{,}362 \text{ originally from Maritimes}}$$

This value is very close to the 14% net outflow calculated for the Class of 1996 *four* years after graduating.

Surveying the Class of 1999 four years after graduating would indicate whether the same number are leaving, but sooner, or whether their exodus has in fact reached a new level.

Graduate Mobility by High School

Table 3.12 presents graduate mobility patterns based on the province/region of high school graduation. As may be expected, these patterns largely follow those seen with province of residence 12 months prior to enrolling as the base.

Table 3.12

Mobility of Graduates Based on Province of High School

	Province of High School			
weighted base	PEI (215)	NS (1,810)	NB (1,229)	Outside Maritimes (942)
Province of residence 12 months prior to enrolling				
PEI	**88%**			1%
NS	7%	**95%**	5%	14%
NB	1%	2%	**92%**	6%
Outside Maritimes	4%	3%	3%	**79%**
Province of study (1999)				
PEI	**64%**	1%	1%	2%
NS	23%	**91%**	17%	71%
NB	14%	8%	**82%**	27%
Current Province of Residence (2001)				
PEI	**61%**	1%	1%	1%
NS	17%	**73%**	9%	24%
NB	3%	3%	**70%**	9%
Outside Maritimes	19%	23%	21%	**66%**

Recalling that while Nova Scotia (43%) and New Brunswick (29%) together comprised the bulk of high school feeder provinces, Ontario (8%) followed closely behind as the third-ranked province of origin of 1999 graduates.

Moving to Another Province or Country Following Graduation

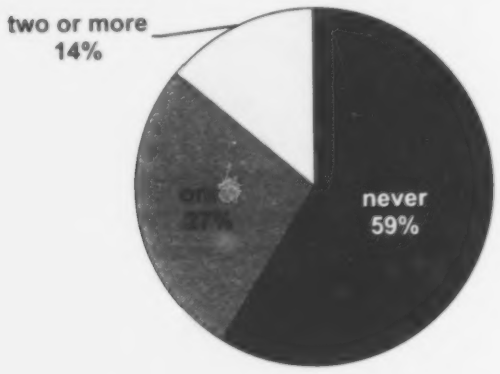
The majority (59%) of graduates did not move at all following graduation (Figure 3.23); the remaining 41% reported moving at least once.

Figure 3.23

Moving to Another Province or Country Following Graduation

"Since graduating in 1999, how many times have you relocated from one province to another (or between countries/states)?"

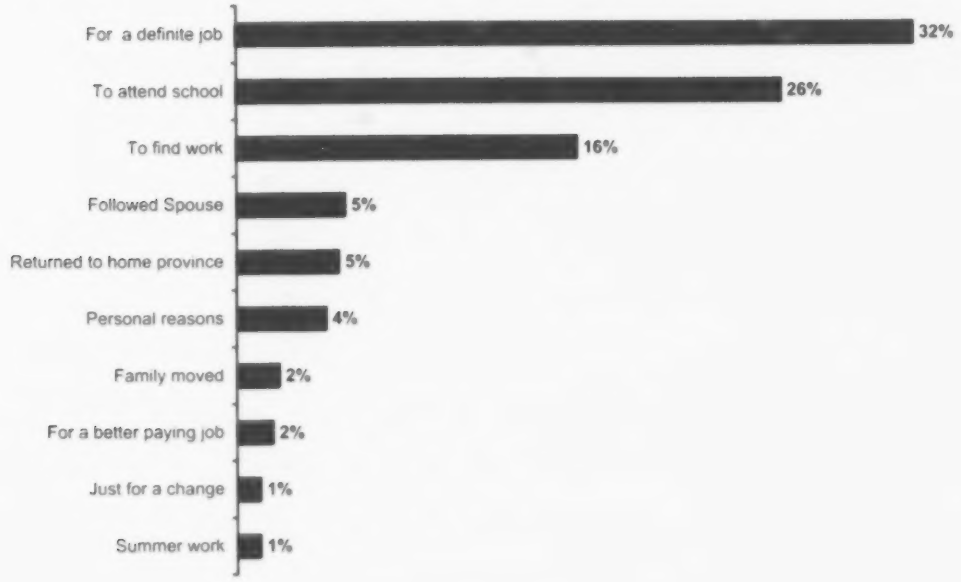
(n = 4,202)



Most graduates who had moved since graduating did so for employment-related reasons (Figure 3.24). The reason given most often for those graduates who had moved at least once was "for a definite job" (32%). Nevertheless, over one-quarter (26%) said they had moved in order to attend school. Also among the top ten reasons were reasons of a personal nature, including following a spouse (5%), returning home (5%), family moved (2%), or simply for a change (1%); other personal reasons were mentioned by 4% of graduates.

Figure 3.24

Top Ten Reasons for Relocation Following Graduation
(n=1,720)



Willingness To Move

We have so far seen that two years after graduating, 78% of graduates originally from the region remained. However, it seems that a certain proportion of these graduates are prepared to pull up stakes and move should the opportunity arise.

Of those graduates who were originally from the Maritimes and still living in the region two years after graduating (n=2,605), 42% said that "if offered a better job", they would be willing (rated 4 or 5 on a scale of 1 to 5, where 1 means not at all willing and 5 means very willing) to move to another part of Canada, and 29% said they would be willing (using the same scale) to move to another country. Thus, there exists a strong potential for increased net loss of graduates from the region.

4. FINANCIAL STATUS OF 1999 GRADUATES

4.1 Overall Earnings

Employment earnings are an important measure of success of graduates in the workplace. Class of 1999 graduates earned, on average, $696 per week, or $36,192 annually; for those graduates who worked full-time, mean weekly earnings were even greater: $743, or $38,636 annually.

Compared to the past performance of previous graduating classes, Maritime university graduates continue to do very well, if not better (Table 4.1). Two years after graduation, Class of 1999 graduates were earning nearly one-third (31%) more than their counterparts who graduated in 1995. The Class of 1999 was also earning nearly as much as the Class of 1996 graduates interviewed *four years* after graduating. If we assume a linear increase in earnings between two and four years out, and estimate that in 1998 (two years post-graduation), the Class of 1996 was earning $30,067 annually,[1] then we can estimate that the Class of 1999 was earning 20% more than the Class of 1996, two years after graduating.[2]

Table 4.1

Comparison of Average Annualized[1] Earnings

Source	Class	Number of Years Post graduation	Weighted base	Mean Annualized Earnings
Statistics Canada NGS	1995 *	2	6,495	$24,286
MPHEC	1996	1	3,293	$26,819
MPHEC	1996	4	1,929	$36,564
MPHEC	1999	2	3,170	$36,192

*NGS Class of 1995: analysis includes only graduates of Maritime universities
[1]Annual wage calculated from weekly wage: (weekly wagex52)/12

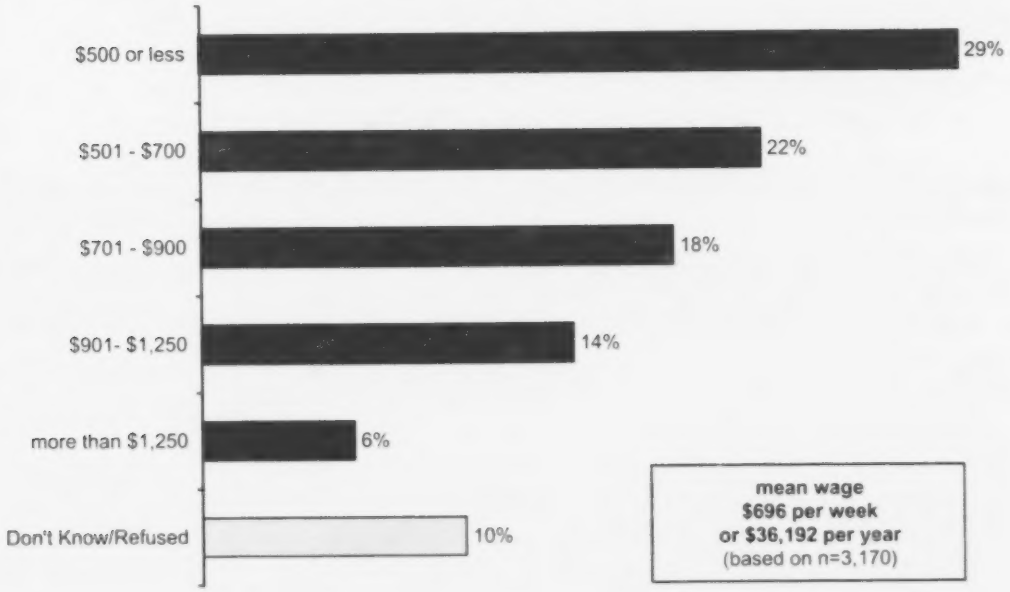
Looking further into the earnings data, we see that graduates of the Class of 1999 populate a spectrum of wage ranges (Figure 4.1). While 20% earned more than $900 a week, 40% earned in the mid-range: more than $500, but less than $901. The single largest group (29%) earned $500 or less per week in their main reference week job. Finally, one-in-ten graduates did not know, or declined to report, their employment earnings.

[1]Annual wage calculated from weekly wage: (weekly wage x52)/12
Calculation: [($36,564-$26,819)/3]+$26,819

[2]Earnings comparison in 2001 constant dollars: in 2001 dollars, the Class of 1996 earned $29,207 one year, and $37,522 four years after graduation. Following the equation above, we can estimate that the class of 1996 earned on average $31,979 two years after graduation [($37,522-$29,207)/3+$29,207]. In 2001 dollars, the Class of 1999 earned 13% more than the Class of 1996 two years after graduation. It should also be noted that graduates of the Class of 1995 earned $26,448 in constant 2001 dollars, two years after graduation.

Figure 4.1

Range of Weekly Employment Earnings of Employed Graduates
(n=3,527)



As expected, the number of hours per week that graduates worked had a significant impact on employment earnings. The great majority (88%) of graduates working part-time (less than 30 hours per week) earned less than $500 a week; those working full-time (30+) hours were much less likely (26%) to be earning in this wage range (Table 4.2). The average wage for those employed full-time was $743 per week; for those employed part-time, the average weekly earnings were $300.

Table 4.2

Range of Weekly Employment Earnings for Employed Graduates by Status

	weighted base	$500 or less	$501 - $700	$701 - $900	$901- $1,250	more than $1,250	average (mean)
Overall	3,170	33%	24%	20%	16%	7%	$696
Full-time	2,829	**26%**	26%	23%	18%	7%	$743
Part-time	336	**88%**	8%	3%	1%	1%	$300

Don't know/refused responses not included in analysis

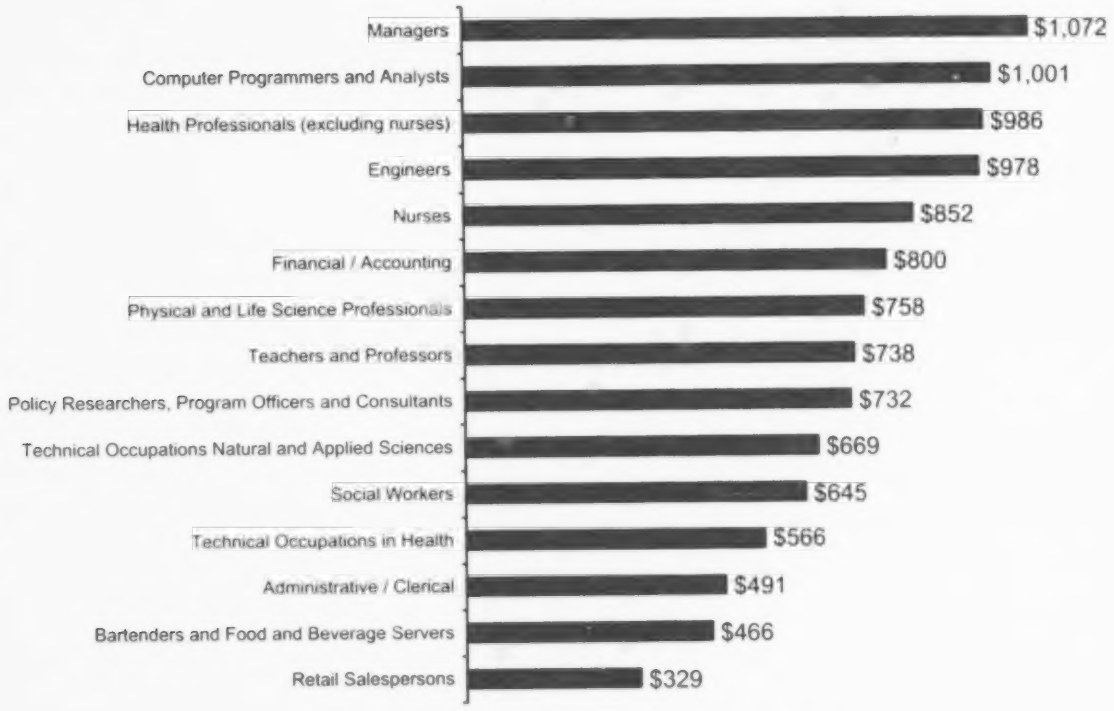
Further analyses of employment earnings will be based upon those graduates who reported working full-time in the reference week (89% of employed graduates).

Full-time Earnings - Top 15 Occupations

Recalling the top 15 occupations reported by graduates, Figure 4.2 presents the average full-time weekly wages for each.

Figure 4.2

Average Weekly Employment Earnings of Graduates Employed Full-time in the Top 15 Occupations
(n=671)


Managers $1,072
Computer Programmers and Analysts $1,001
Health Professionals (excluding nurses) $986
Engineers $978
Nurses $852
Financial / Accounting $800
Physical and Life Science Professionals $758
Teachers and Professors $738
Policy Researchers, Program Officers and Consultants $732
Technical Occupations Natural and Applied Sciences $669
Social Workers $645
Technical Occupations in Health $566
Administrative / Clerical $491
Bartenders and Food and Beverage Servers $466
Retail Salespersons $329

At the top of the scale are graduates employed in management positions, who earned $1,072 per week. Following these top earners were graduates in Computer-related occupations, Health Professions (excluding Nursing) and Engineering. The difference between the mean full-time weekly wage reported by Nurses, and graduates employed as Policy Researchers, Program Officers and Consultants was not significantly different. Nurses did, however, earn significantly more than graduates employed in Technical Occupations in the Natural & Applied Sciences. At the bottom of the earnings scale of the top 15 occupations were those graduates working as Retail Sales People. They earned just $329 per week.

Full-time Earnings - Graduate Groups

Looking at full-time earnings statistics, it becomes apparent that some groups of graduates are doing much better than others (Table 4.3). Significant variation exists within demographic groups (gender and language) and education-related variables (prior education level, degree level and field of study). Province of residence also plays an important role in determining full-time earnings.

Table 4.3

Full-time Weekly Employment Earnings Among Employed Graduates

				Range of Full-time Weekly Employment Earnings				
	weighted base	average (mean) weekly wages		$500 or less	$501 - $700	$701 - $900	$901- $1,250	more than $1,250
Overall	2,831	$743	-	26%	26%	23%	18%	7%
Gender								
Male	1,160	**$812**	a	22%	24%	22%	**21%**	11%
Female	1,678	$694	b	**29%**	27%	23%	16%	5%
Language spoken most often at home								
English	2,470	**$753**	a	26%	26%	22%	18%	8%
French	297	$671	b	27%	28%	30%	14%	1%
Degree Level								
Bachelor's degree	2,172	$676	c	**30%**	**30%**	23%	13%	4%
First Professional	112	$959	b	12%	19%	**27%**	22%	20%
Diploma/Certificate	186	$660	c	**39%**	20%	21%	16%	5%
Master's/Doctorate	374	**$1,095**	a	4%	11%	18%	**45%**	22%
Field of Study								
General Arts & Science	17	-	-	-	-	-	-	-
Education	444	$801	a	15%	30%	19%	**30%**	6%
Fine & Applied Arts	54	$614	b	49%	23%	13%	10%	5%
Humanities	251	$568	b	44%	28%	19%	8%	1%
Social Sciences	569	$631	b	38%	30%	17%	10%	5%
Commerce & Administration	504	$812	a	21%	31%	23%	14%	11%
Agricultural & Biological Sciences	263	$569	b	**50%**	25%	13%	8%	3%
Engineering & Applied Sciences	246	$872	a	12%	22%	29%	25%	13%
Health Professions	294	$885	a	7%	11%	47%	27%	8%
Mathematics & Physical Sciences	207	$856	a	20%	22%	20%	27%	12%
Information Technology	163	**$1,052**	-	5%	16%	23%	34%	21%
Prior Level of Education								
High school diploma	1,560	$650	c	**36%**	28%	20%	11%	5%
PSE below Bachelor's degree	492	$751	b	23%	28%	26%	18%	6%
Bachelor's degree or above	790	**$917**	a	10%	21%	25%	**32%**	13%
Province of Residence (2001)								
PEI	146	$561	c	**42%**	34%	17%	5%	1%
NS	1,072	$675	b	32%	**28%**	19%	17%	4%
NB	712	$670	b	28%	**31%**	24%	15%	2%
Outside Maritimes	936	**$898**	a	16%	19%	**26%**	23%	16%

Note: Within each group, means with the same letter are not significantly different - based on ANOVA and post-hoc tests ($p<0.05$)
- means not included in analysis
Don't know/refused responses excluded

Findings show a gap in earnings between English- and French-speaking graduates. Average weekly full-time earnings of Anglophones were $753, $82 (or 12%) more per week than Francophone graduates, who reported average earnings of $671. This language gap in earnings also existed among graduates of the Class of 1996, where Anglophones earned 9% more than Francophones four years after graduating. Although the numbers of Francophones (Class of 1999) in any one occupation category are very small, it is interesting to note that the general trend is that the wage gap exists in most of the top occupations.

Exploring a bit further, we find that at least some of this language-based wage gap may be explained by differences in the average number of hours worked per week reported by respondents. English-speaking graduates reported working an average of 43 hours per week, while French-speaking graduates reported an average of 41 hours. Comparing wages on an hourly basis shows that Anglophones earned an average of $17.51 per hour or 7% more than Francophones who earned an average of $16.36 per hour.

There was no difference between the two language groups with respect to gender distribution or mean age, thus ruling out these two variables as potential factors explaining the wage differential. However, degree level may help to explain the difference in earnings, with English-speaking employed graduates somewhat more likely to have earned a credential at the First Professional (4%) or Master's/Doctoral level (14%) than were French-speaking graduates (1% earned a First Professional and 10% earned a Master's/Doctorate).

It is also possible that part of the language differential may be explained in part by place/region of residence. However, further study would be needed to explore this factor.

In contrast to the gap in wages, the reader should recall that French-speaking graduates were more likely than English-speaking graduates to be employed, have a full-time job, and to have a job closely related to their field of study.

Turning to education-related variables, the findings reveal that higher wages generally come with more advanced degrees. Those who had obtained a Master's or Doctoral degree in 1999 earned on average $1,095 per week. This is significantly greater than the earnings reported by graduates with First Professional degrees ($959), which in turn were significantly greater than the wages reported by those with Bachelor's degrees ($676) or Diploma/Certificates ($660).

Examining the wage data further, the findings reveal the extent of the polarity between the highest and lowest wage earners: while 60% of Bachelor's graduates reported that they earned $700 or under per week, 67% of those with a Master's or Doctoral degree said they earned more than $900 per week.

These findings are supported by the statistics, which group graduates according to the level of education achieved prior to enrolling in studies leading to the 1999 degree. Those who had earned a Bachelor's degree or above prior to enrolling reported, on average, a full-time weekly wage of $917, significantly more than those with prior postsecondary education below a Bachelor's ($751), who in turn earned significantly more than those who entered with no prior postsecondary education ($650).

The variation in wage ranges between the highest and lowest income earners is quite striking. While just 16% of graduates who entered with a high school diploma reported earning more than $900, 45% of those with a Master's or Doctoral degree reported an income in this range, a difference of 29 percentage points. Recalling the relationship between age and income (Methodology section), we can conclude that advanced education and greater experience accumulated over time both result in increased wages.

A graduate's field of study is also an important determinant of full-time earnings. The top wage earners had completed programs in Health Professions, Commerce & Administration, Engineering & Applied Sciences, Mathematics & Physical Sciences and Education. These graduates earned significantly more than the group of lowest wage earners - graduates of Social Sciences, Fine & Applied Arts, Humanities and Agricultural & Biological Sciences. In fact, while fully three-quarters of Agricultural & Biological Sciences graduates

reported that they earned $700 or less, 39% of graduates of Mathematics & Physical Sciences programs (which include many Information Technology programs) said they made over $900 per week.

Evidence from previous surveys does lend some encouragement for the lowest wage earners. A comparison of earnings of the Class of 1996 one and four years after graduation shows that even though the average monthly wages of graduates of the lowest-earning fields four years after graduating was less than the average monthly wages of graduates of the highest-earning fields just one year after graduating, the gap in earnings between these two groups did shrink over time. In 1997, graduates of Health Professions, Commerce & Administration, Engineering & Applied Sciences, Mathematics & Physical Sciences and Education earned 56% more than those who completed programs in Social Sciences, Fine & Applied Arts, Humanities and Agricultural & Biological Sciences; by 2000, this earnings advantage had shrunk to 48%.

Information Technology graduates earned the highest wages ($1,052 per week), with over half (55%) reporting full-time weekly wages greater than $900.

The findings also provide ample evidence that, unfortunately, the gender gap is alive and well. Women reported earning $694 per week, or 85% of the earnings of their male counterparts, who made $812 per week. Similar results were recorded for the Class of 1996: one year after graduation, women working full-time earned 86% of men's wages. In 2000, this gap widened somewhat, with women earning 82% of men's wages.

Among members of the Class of 1999, nearly one-third (32%) of men reported earning over $900 per week, while just 21% of women reported earnings in this range.

Taking into account the average number of hours worked by graduates employed full-time, the earnings gap is not as wide. Male graduates employed full-time worked an average of 45 hours per week, and women worked 42 hours, then taking the average weekly wage, we can calculate earnings based on an hourly rate: women earned the equivalent of $16.52 per hour, or 92% of men's wages ($18.00 per hour).

Considering the top occupations of 1999 graduates, we find that the earnings gap (based on weekly average earnings) does not exist in all occupation types (Nursing and Retail Sales), and is even reversed for those employed as Social Workers (Figure 4.3). Women employed in these positions earned 115% of men's wages.

The wage gap was greatest for those employed in Financial/Accounting-related positions, where women earned 82% of men's full-time wages. Among this group of graduates, there was no difference between men and women in the degree level completed in 1999.

Figure 4.3

Ratio of Female to Male Full-time Weekly Employment Earnings, by Occupation

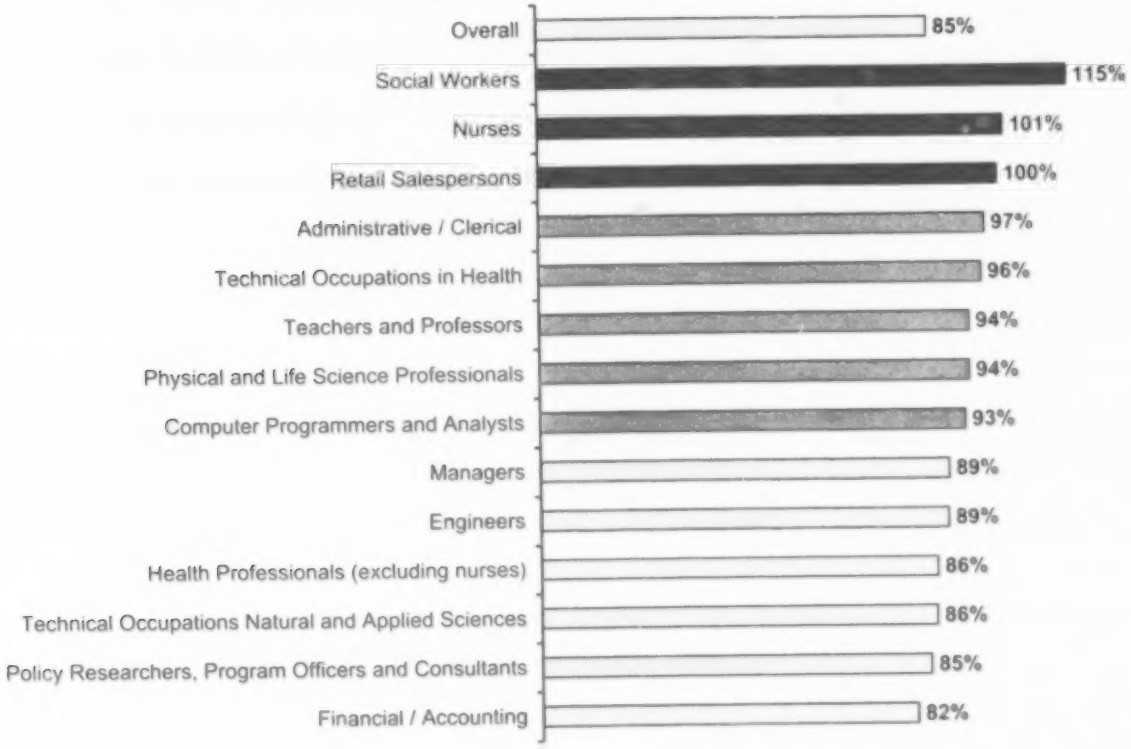
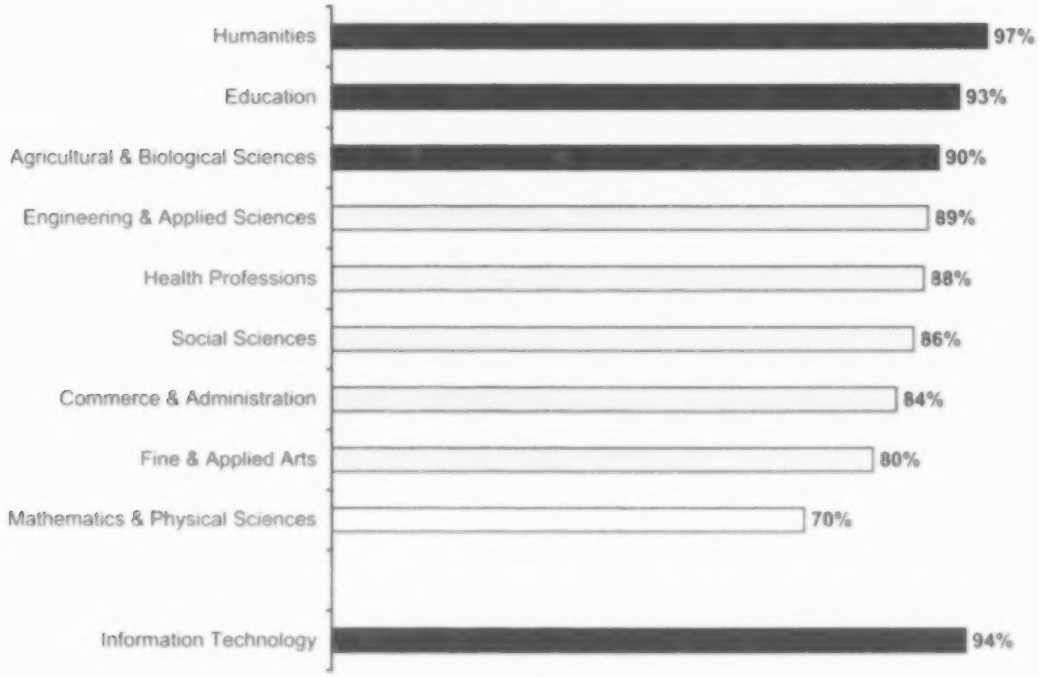


Figure 4.4 shows the ratio of women's to men's earnings by major field of study. The largest wage gap existed among graduates of Mathematics & Physical Sciences (70%), while full-time earnings of women and men approached equality among graduates of Humanities (97%).

Figure 4.4

Ratio of Female to Male Full-time Weekly Employment Earnings, by Field of Study



The highest wage earners, bringing home $898 per week, were living outside the Maritimes at the time of the interview. These graduates earned significantly more (at least $223, or one-third more) than graduates living in the region. At least part of this wage differential may be explained by the distribution of occupations among graduates living outside the Maritimes: these graduates were significantly more likely to hold one of the top-paying occupations (Computer Programmers & Analysts, Health Professionals (excluding Nurses) and Engineers). The wages of graduates living in New Brunswick and Nova Scotia were not significantly different from each other. Graduates of these two provinces, however, earned significantly more (at least $109 or 19% more) than those living in Prince Edward Island.

Interestingly enough, the province where a graduate attended university also had a significant effect on full-time wages in the reference week. Graduates of Nova Scotian institutions earned the most, at $780 per week, followed by graduates of New Brunswick universities ($694 per week), and lastly, by those who studied in Prince Edward Island ($625 per week). The lower wages for Prince Edward Island graduates may partly be explained that its only university, University of Prince Edward Island, is primarily undergraduate, therefore the wage advantage that comes with advanced levels of education is less likely to be seen. In addition, the differences seem to be correlated with where these graduates were living in 2001: 34% of those who studied in Nova Scotia, 28% of those who studied in New Brunswick and 25% of those who studied in Prince Edward Island were living outside the region in 2001. As shown in Table 4.3 and the paragraph above, it is those graduates living outside the region who earn the greatest income. In fact, if we remove the effect of graduates who were originally from outside the region (i.e., exclude them from the analysis),

the significant difference between graduates of Nova Scotia and New Brunswick institutions disappears. However, excluding this group has no impact on the earnings of those who studied in Prince Edward Island.

Paid Work Placements and Full-time Earnings of Bachelor's Level Graduates

For employed graduates of Bachelor's level programs, having had paid work placements during their program of study has a significant positive effect on average weekly earnings. Investigating further, however, we find that this is true only for certain fields. Mathematics & Physical Sciences graduates who reported having at least one paid work placement reported an average full-time weekly wage of $1,026, 48% or $330 more than those who reported having no paid work placements ($695). Most in this field who reported paid placements had completed programs in Computer-related programs, which would also account for the difference in wages.

Similarly, graduates of Engineering & Applied Sciences who reported having had at least one paid work placement ($1,016) also enjoyed a significant earnings advantage of 26% over their counterparts who did not have any paid work placements ($808). Although Humanities graduates with paid placements earned significantly more than those who did not, it should be noted that again, the sub-field may account for at least part of the difference: most graduates in the Humanities with paid placements completed programs in Public Relations/Communications-related disciplines.

Having had paid work placements did not significantly affect full-time weekly earnings in any other field.

General Population Wage Comparisons

Returning to comparisons of earnings on the basis of province of residence, we will now examine the performance of 1999 graduates against the performance of the general population by province of residence (Table 4.4). Survey data (weekly earnings of employed graduates) was compared against Statistics Canada's Labour Force Survey, weekly earnings (full- and part-time) for June, 2001.

Table 4.4

Weekly Earnings of Employed (full- and part-time) Graduates: Class of 1999 vs General Population

	Class of 1999		General Population	
	weighted base	weekly earnings	weekly earnings June, 2001*	Earnings Advantage
Province of Residence, 2001				
PEI	129	$522.25	$522.80	0%
NB	787	$630.18	$587.74	7%
NS	1,228	$626.48	$566.84	11%
NF	109	$724.31	$599.39	21%
PQ	75	$654.92	$620.98	5%
ON	496	$857.35	$711.28	21%
AB	106	$744.38	$681.50	9%
BC	66	$929.21	$668.59	39%
Canada	3,024	$677.04	$603.37	12%

*Source: Statistics Canada Employment, Earnings and Hours Cat. # 72-002-XIB, Table 9

With the exception of graduates who were living in Prince Edward Island at the time of the interview, the Class of 1999 enjoys an advantage over the general population when it comes to employment earnings.

Along with relatively higher unemployment than other 1999 graduates (Figure 3.2), the lack of an earnings advantage over the general population may help to explain the greater tendency for Islanders to leave their home province. Furthermore, living in some provinces confers a greater advantage than in others. For example, a graduate living in Quebec earned only 5% more than the general population, while those living in British Columbia enjoyed a 39% advantage over the general population.

Looking at the rest of the Maritimes, graduates living in Nova Scotia at the time of the interview earned 11% more, and those living in New Brunswick earned 7% more, than the general population in those provinces.

It is important to note that the rank of average earnings within the general population tends to follow the same pattern as that observed within the Class of 1999, indicating more basic economic differences between the three provinces.

Full-time Earnings and Job Satisfaction

One measure of employment success is earnings, and the findings show that there is a strong link between how much they earn and how satisfied they are with their job. Table 4.5 shows the relationship between full-time weekly earnings and job and wage satisfaction.

Table 4.5

Weekly Employment Earnings Among Graduates Employed Full-time, by Job Satisfaction, and Relatedness of Job to Studies

	weighted base	$500 or less	$501 - $700	$701 - $900	$901- $1,250	more than $1,250
Overall	2,829	26%	26%	23%	18%	7%
Satisfied with Job?						
Very Satisfied	1,262	19%	25%	26%	**21%**	9%
Satisfied	1,314	29%	27%	21%	17%	6%
Dissatisfied[1]	253	**49%**	25%	17%	8%	1%
Satisfied with Wages?						
Very Satisfied	587	15%	20%	28%	**23%**	14%
Satisfied	1,557	25%	27%	23%	18%	7%
Dissatisfied	562	38%	28%	18%	13%	3%
Very dissatisfied	123	**43%**	29%	11%	16%	1%
Was Job Related to Field of Study?						
Closely related	1,402	14%	27%	29%	**22%**	**8%**
Somewhat related	799	28%	27%	20%	18%	7%
Not related	615	**53%**	22%	12%	8%	5%

[1]includes those who were somewhat and very dissatisfied with their job

Nearly half (49%) of those who claimed to be dissatisfied or very dissatisfied with their job earned $500 or less. By comparison, just 19% of those who reported they were very satisfied with their job overall earned $500 or less and 15% of those who earned in this range also reported being very satisfied with their wages. The differences observed are statistically significant.

What is interesting about this table is that there are a great many graduates who seem to be satisfied with below-average wages. Recalling that the average full-time weekly wage of all graduates in the reference

week was $743, below average wages would fall in the ranges of less than $500 and $501-$700. Of those graduates who claimed they were either satisfied or very satisfied with their wages (n=2,144), nearly half (47%) earned $700 or less per week. Those earning below-average wages were much more likely to have earned a Bachelor's degree (87%); just 4% had obtained a Master's/Doctorate. Above-average wage earners were more likely to have earned a Master's/Doctorate (24%) and less likely to have earned a Bachelor's degree (64%). Satisfaction with below-average wages, then, seems to be linked with expectations based on level of study, with Bachelor's graduates expecting to earn less than if they had an advanced degree.

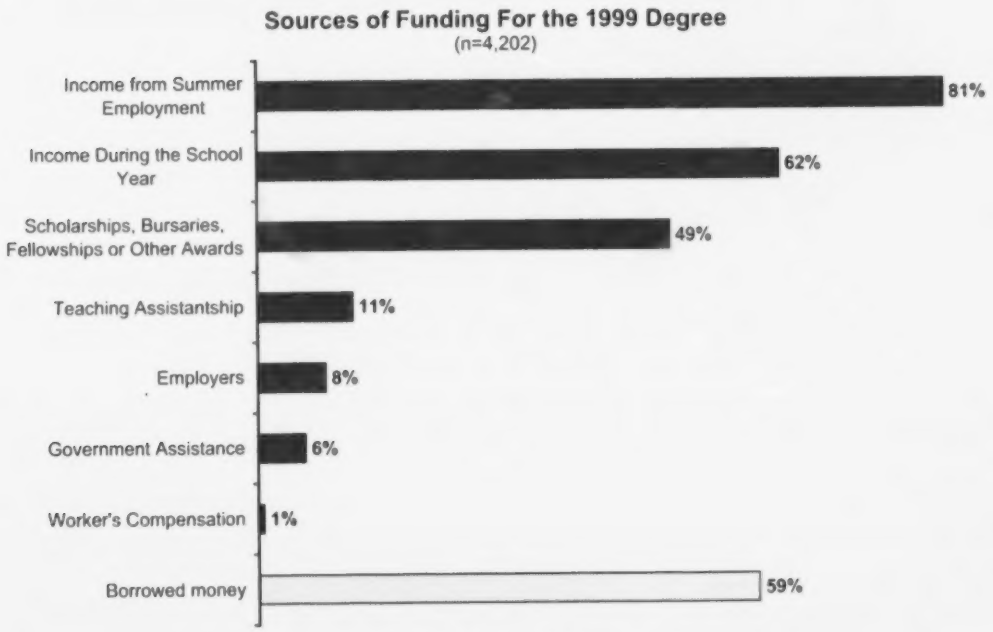
Table 4.5 also illustrates the relationship between full-time weekly earnings and the degree to which a graduate's job is related to their field of study. Again, we find a statistically significant link. Among graduates who reported that their job was not related to their field of study, over half (53%) also reported full-time weekly employment earnings of $500 or less. By contrast, just 14% of those whose job was closely related reported earnings in this range. In fact, 30% of graduates who reported having a job closely related to their field of study earned more than $900 per week, 17 percentage points over those whose job was not related at all.

4.2 Funding the 1999 Degree

Sources of Funding

The majority of graduates contributed to the financing of their education using employment earnings, either from summer jobs (81%), or income earned during the school year (62%) (Figure 4.5). Nearly half (49%) used money from scholarships, bursaries, fellowships or other awards.

Figure 4.5



The average value of scholarships reported was $5,760. The amount reported varies significantly with degree level, as may be expected. Many students in Master's, and especially Doctoral level, programs rely on scholarships and fellowships to pay for their education, and often for income. Those who completed graduate degrees reported receiving $18,085 in scholarships. This is significantly more than the amount reported by First Professional ($6,275) and Bachelor's ($4,408) graduates. Graduates of Diploma/Certificate programs reported scholarship awards in the amount of $2,696, significantly less than the amount reported by First Professional and Bachelor's graduates.

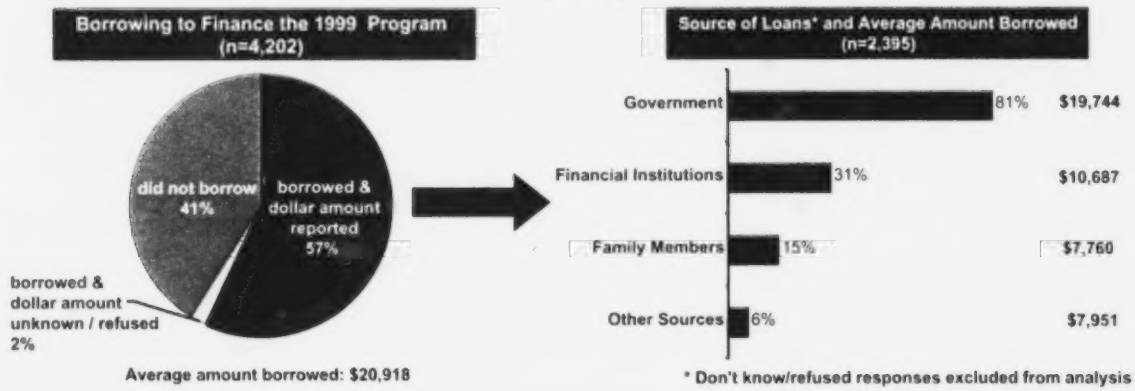
The findings also reveal a disparity among fields of study at the Bachelor level. Graduates of Mathematics & Physical Sciences reported the highest scholarship amounts ($6,908), significantly more than all other fields except Engineering & Applied Sciences ($5,620). Although graduates of Fine & Applied Arts programs received the least amount in scholarship funding ($2,510), this amount was not significantly different from the amounts reported by Education ($3,133), Social Sciences ($3,750), Health Professions ($3,753), Commerce & Administration ($4,012) or Humanities ($4,488) graduates. Agricultural & Biological Sciences graduates received $4,820.

Borrowing to Finance the 1999 Degree

Well over half (59%) of the Class of 1999 borrowed money to finance the 1999 degree (Figure 4.6). This is up eight percentage points from the proportion of the Class of 1996 who borrowed.

Figure 4.6

Borrowed Money?
(n=4,202)


Borrowing to Finance the 1999 Program (n=4,202)
did not borrow 41%
borrowed & dollar amount reported 57%
borrowed & dollar amount unknown / refused 2%
Average amount borrowed: $20,918
Source of Loans* and Average Amount Borrowed (n=2,395)
Government 81% $19,744
Financial Institutions 31% $10,687
Family Members 15% $7,760
Other Sources 6% $7,951
* Don't know/refused responses excluded from analysis

Of those graduates who reported how much they borrowed, the average amount borrowed from all sources together was $20,918. Just three years' difference in the graduating year amounted to significantly more borrowing, with the Class of 1999 borrowing nearly five thousand dollars or 30% more than the Class of 1996 (reported an average amount borrowed of $16,014).[3]

The increase in borrowing between those graduating in 1996 and 1999 was likely in part a reflection of policy changes to federal student loan programs which were modified in 1994-95, when the amount available to

[3]The Class of 1996 borrowed $16,814 in 1999 constant dollars, a difference of $4,104, o 24%.

be borrowed through Canada Student Loans was increased from $105 to $165 per week of study. Similarly, changes to provincial student assistance programs in all three Maritime provinces made more money available to students[4]. While those graduating in 1996 would have experienced these benefits, the full effect for the duration of a four year Bachelor's program would not have been realized until at least 1998. In addition, increases in tuition and residence fees between 1996 and 1999 have likely had a significant impact on the amount of money a student needed to borrow.

Although the Class of 1999 borrowed money from a variety of sources, the vast majority who borrowed took advantage of government student loans (81%), borrowing an average of $19,744. Although the proportion who borrowed from this source is down 8 percentage points from the Class of 1996, the amount borrowed represents an increase of 30% over the average amount borrowed by the Class of 1996 for their pre-1996 studies ($15,176).

Another 31% of those who borrowed money obtained their loans directly from financial institutions, and borrowed an average of $10,687.

According to The Canada Millennium Scholarship Foundation[5] 10-20% of all college and university students use private loans as a form of financing; this compares closely to the findings of this survey, where 18% of all graduates borrowed from this source.

Loans from Family members accounted for 15% of borrowing; the average amount borrowed from this source was $7,760. Finally, the 6% of graduates who borrowed from other sources accumulated an average debt of $7,951.

The Survey of the Class of 1996 did not collect detailed borrowing information for individual sources (except government student loans), however, the amount borrowed overall from sources other than government was $9,250, close to the amounts borrowed by the Class of 1999 from financial institutions, family members, and other sources.

Between the graduating years of 1996 and 1999, the proportion of graduates borrowing heavily (i.e., $30,000 or more) has more than doubled: while 12% of the Class of 1996 borrowed in this range, 27% of the Class of 1999 (Table 4.6) borrowed $30,000 or more, an increase of 15 percentage points.

For Class of 1999 graduates, the main source of loans of this magnitude was government: one-quarter of government borrowing amounted to $30,000 or more, as compared to under 5% of borrowing from other sources.

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[4]PEI: 1994-95 changed from a bursary to a loan program (maximum $110 per week of study). NB: 1993-94 changed from an all bursary program to a loan-bursary mix. 1998-99 amount of student loans available increased from maximum $80 to $110 per week. NS: 1993-94: loan/bursary mix changed to all-loan program (maximum $8,160 for 32 weeks of study)

[5]Canada Millennium Scholarship Foundation. 2002. The Price of Knowledge: Access and Student Finance in Canada.

Turning our attention to graduates of the Class of 1995 (National Graduate Survey, Maritime University graduate subsample), we find that they were more likely (54%) than Class of 1999 graduates (46%) to have borrowed from government student loan programs.[6]

Class of 1995 graduates borrowed an average of $16,109 from this source.

Table 4.6

Range of Borrowing for the 1999 Program					
	weighted base	less than $5,000	$5,000 - $14,999	$15,000 - $29,999	$30,000 or more
All Sources	2,402	6%	30%	**37%**	27%
Government	1,944	6%	32%	**37%**	25%
Financial Institutions	756	17%	**57%**	22%	4%
Family Members	371	40%	**44%**	12%	3%
Other	147	31%	**56%**	9%	4%

The overall increase in the proportion of graduates borrowing (all sources) and in the amount borrowed is a significant finding. That more graduates seem to be using private means (i.e., borrowing from financial institutions) either as a sole source of financing or as a way to augment money obtained from government student loans might suggest that existing government student loan programs may not be meeting the financial needs of a growing segment of students. Further monitoring of the borrowing patterns of future Maritime university graduating classes is warranted.

Table 4.7 illustrates the pattern of borrowing among graduate groups. The most notable patterns occur along lines of degree level, prior level of education and parents' combined level of education. The differences in the proportion borrowing by degree level likely reflected differences in program cost and/or personal financial resources, with 87% of First Professional graduates reporting they borrowed money. Least likely (40%) to have reported borrowing were graduates of Master's/Doctoral level programs.

That student loan programs are designed specifically to support those students demonstrating financial need is apparent: while 65% of graduates whose parents' combined level of education was below the Bachelor level reported borrowing to finance their education, significantly fewer (47%) graduates who reported both parents had a Bachelor's degree or above also reported borrowing.

There was no significant difference in the borrowing patterns by province of graduation.

[6]The reader should note that in this case the percentages here were derived using the class as a whole as the denominator.

Table 4.7

Percent who Borrowed Money (any source) to Finance the 1999 Program

	weighted base	percent who borrowed
Gender		
Male	1,705	60%
Female	2,491	59%
Language		
English	3,656	**60%**
French	409	57%
Prior Level of Education		
High school diploma	2,407	60%
PSE below Bachelor's degree	673	**67%**
Bachelor's degree or above	1,111	55%
Parents' Combined Level of Education		
Less than Bachelor's degree	2,354	**65%**
At least one parent with Bachelor's degree	888	57%
Both parents with Bachelor's degree or above	791	47%
Field of Study		
General Arts & Science	25	56%
Education	623	57%
Fine & Applied Arts	107	**75%**
Humanities	442	57%
Social Sciences	893	62%
Commerce & Administration	660	55%
Agricultural & Biological Sciences	443	58%
Engineering & Applied Sciences	326	67%
Health Professions	365	64%
Mathematics & Physical Sciences	311	56%
Information Technology	229	65%
Degree Level		
Bachelor's degree	3,245	63%
First Professional	146	**87%**
Diploma/Certificate	272	47%
Master's/Doctorate	533	40%

Debt Outstanding for 1999 Degree

Having had two years to start paying down their loans, Maritime graduates have been relatively successful in reducing the size of their debt. The average amount outstanding for loans from all sources combined now stands at $16,462, down $4,456, or 21% from the total borrowed ($20,918) for pre-1999 studies (Table 4.8). Because they make up the bulk of student borrowing, this figure is largely driven by the overall rate of repayment for government student loans.

Table 4.8

Average Student Debt Outstanding for the 1999 Program

	weighted base	Average Amount Borrowed for the 1999 program	Average Amount Outstanding 2001	$ Change 1999 to 2001	Percent Change 1999 to 2001
All Sources	2,402	$20,918	$16,462	$4,456	-21%
Government	1,944	$19,744	$16,435	$3,309	-17%
Financial Institutions	756	$10,687	$7,231	$3,456	-32%
Family Members	371	$7,760	$4,531	$3,229	-42%
Other Sources	147	$7,951	$4,539	$3,412	-43%

Debt reduction is closely tied to the amount borrowed. Thus, for those graduates who borrowed from family members or other sources, where the average amount borrowed was the smallest, repayment of debt was most successful. For these sources, the average loan was paid down by 42-43%.

Regardless of the overall success of the class in repaying their debt, the findings show that certain graduates were more successful than others, and again, the driving factor is the original amount borrowed (Table 4.9).

Table 4.9

Total Amount Borrowed for the 1999 Program Compared to Total Debt Outstanding in 2001

		Total amount outstanding 2001				
	weighted base	zero	less than $5,000	$5,000 - $14,999	$15,000 - $29,999	more than $30,000
Range amount borrowed for the 1999 program						
Less than $5,000	149	**53%**	47%			
$5,000 - $14,999	693	22%	18%	**60%**		
$15,000 - $29,999	841	6%	2%	21%	**71%**	
$30,000 or more	591	2%	<1%	2%	29%	**67%**

*Don't know/refused responses excluded from analysis

While over half (53%) of those who borrowed less than $5,000 had paid off their student debt within two years after graduating, only 2% of those who borrowed $30,000 or more had managed to do the same. In fact, at the time of the interview, fully two-thirds (67%) of those who borrowed in the highest range still owed at least $30,000.

Original borrowing patterns aside, the ability to repay also appears to depend on certain other characteristics such as degree level, field and employment-related variables. For the most part, however, underpinning these differences are relative differences in earnings. Table 4.10 summarizes these findings.

Table 4.10

Average Total Debt Outstanding in 2001 for the 1999 Program

	weighted base	Total Amount Borrowed pre-1999		Percent paid off loan	Average Amount Outstanding (includes $0 outstanding)		Percent reduction over two years
Gender							
Male	983	$21,196	a	15%	$16,136	a	24%
Female	1,419	$20,725	a	12%	$16,694	a	19%
Language							
English	2,113	$20,988	a	13%	$16,482	a	21%
French	226	$21,449	a	9%	$17,348	a	19%
Prior Level of Education							
High school diploma	1,376	$20,847	b	12%	$16,930	a	19%
PSE below Bachelor's degree	428	**$22,643**	a	12%	$17,747	a	22%
Bachelor's degree or above	595	$19,790	b	**17%**	$14,326	b	**28%**
Parents' Combined Level of Education							
Less than Bachelor's degree	1,481	**$21,936**	a	**11%**	**$17,878**	a	**18%**
One parent with Bachelor's degree or above	482	$19,450	b	17%	$14,351	b	26%
Both parents with Bachelor's degree or above	359	$18,642	b	17%	$13,527	b	27%
Major Field of Study							
General Arts & Science	14						
Education	337	**$16,182**	c	16%	$12,489	d	23%
Fine & Applied Arts	75	$21,179	b	13%	$16,421	bc	22%
Humanities	241	$20,388	b	16%	$16,595	bc	19%
Social Sciences	528	$21,103	b	10%	$17,519	bc	17%
Commerce & Administration	351	$19,368	b	15%	$14,365	cd	26%
Agricultural & Biological Sciences	249	$21,625	b	10%	$18,458	b	15%
Engineering & Applied Sciences	208	$20,376	b	14%	$15,325	bcd	25%
Health Professions	229	**$30,757**	a	12%	**$22,766**	a	26%
Mathematics & Physical Sciences	170	$20,726	b	16%	$15,855	bcd	24%
Information Technology		$21,585	-	19%	$14,550	-	33%
Degree Level							
Bachelor's degree	1,956	$20,696	b	12%	$16,562	b	20%
First Professional	122	$37,724	a	**8%**	**$29,018**	a	23%
Diploma/Certificate	120	$13,962	d	14%	$11,371	c	19%
Master's/Doctorate	205	$17,077	c	**23%**	$10,809	c	**37%**
Labour Force Status							
Employed	2,051	$20,829	a	**14%**	$15,988	b	**23%**
Unemployed	161	$21,817	a	7%	$18,542	a	15%
Not in the Labour Force	190	$21,110	a	8%	$19,736	a	7%
Weekly Employment Earnings							
less than $500	845	$20,305	b	8%	**$17,971**	a	11%
$501 - $700	541	$20,541	b	13%	$15,861	ab	23%
$701 - $900	434	$22,447	b	15%	$16,286	ab	27%
$901- $1,250	275	$19,954	b	19%	**$13,700**	b	31%
more than $1,250	116	**$26,003**	a	23%	$16,205	ab	**38%**

within each group, categories with the same letter are not significantly different based on ANOVA and post-hoc tests ($P<0.05$);
"-" means not included in analysis

The gender gap in repayment described for the Class of 1996 four years after graduating does not appear to exist here - although men borrowed slightly more and were slightly more likely to have paid off their loans, the difference between male and female graduates is not significant.

There are no differences in the rate of repayment between English- and French-speaking graduates.

The level of education attained prior to enrolling in the 1999 program has an interesting effect on the ability to repay: although there was no significant difference between the amount borrowed by those who entered with a high school diploma and those who had entered with at least a Bachelor's degree, there was a significant difference in their relative ability to repay. Earning higher wages, those who began their 1999

studies with at least a Bachelor's degree were able to reduce their debt by 28%, while those with a high school diploma had reduced their debt by 19%.

Graduates whose parents' combined level of education was below the Bachelor's level ($21,936) were at a distinct disadvantage as compared to their counterparts with one ($19,450) or both ($18,642) parents having a Bachelor's degree or above, borrowing significantly more than the other two groups. As student loans are meant to satisfy financial need, and there is a clear link between level of educational attainment and socioeconomic status, then this difference is to be expected. However, this disadvantage is not easily shaken - two years after graduation, graduates from the lowest socioeconomic stratum (i.e. both parents with education below the Bachelor's level) were less likely to have paid off their loan and owed significantly more than the other two groups.

The relationship between field of study and repayment of debt is complex; to simplify the discussion, we will look at the extremes of repayment success. Graduates who completed programs in the Health Professions borrowed significantly more than graduates of all other fields, and consequently, owed the most two years after graduation. However, the proportion of their debt paid down is in line with that of most other fields. Having borrowed the least of all fields, Education graduates also had the least amount of debt remaining, but again, the proportion paid down was relatively similar to most other fields.

A graduate's degree level had a strong influence on repayment: Master's and Doctoral degree graduates earned the highest wage ($1,095 per week), and were among those who borrowed the least. Twenty-three percent had paid off their loan within two years. They also made the greatest dent in their debt, having repaid, on average, 37% of their loans, and owing the least of all groups except Diploma/Certificate graduates. Having borrowed significantly more than all other levels, First Professional graduates were the least likely (8%) to have paid off their loan, and owed the greatest amount after two years.

Although there were no significant differences in initial borrowing patterns, employed graduates have had more success repaying debt from their 1999 program than those not working. Within two years after graduation, 14% of employed graduates had paid off their student loans, nearly double the proportion who were not working (7-8%). In addition, those employed graduates still in repayment owed significantly less and had repaid a greater proportion (23%) of their loans than those not working (7-15%).

Not surprisingly, employment earnings of employed graduates had a significant impact on repayment success. Those earning $500 or less owed significantly more than those who earned $901-$1,250, but there was no significant difference in the amount each group had borrowed. The proportion repaid by the lowest wage earners was also the lowest among all income ranges.

Province of graduation had no significant impact on either borrowing or repayment patterns.

Graduates Still in Repayment

A good number of Maritime graduates were still in the process of repaying their loan at the time of the interview. Table 4.11 presents a loan status summary of those graduates who had not yet paid off their loan.

Table 4.11

Average Student Debt Outstanding for the 1999 Program				
	weighted base[1]	Amount Borrowed	Amount Outstanding	% change 1999 to 2001
All Sources	**1,975**	**$22,575**	**$18,956**	**16%**
Government	1,664	$20,759	$18,255	12%
Financial Institutions	562	$11,983	$9,432	21%
Family Members	216	$9,422	$7,651	19%
Other Sources	82	$10,546	$7,782	26%

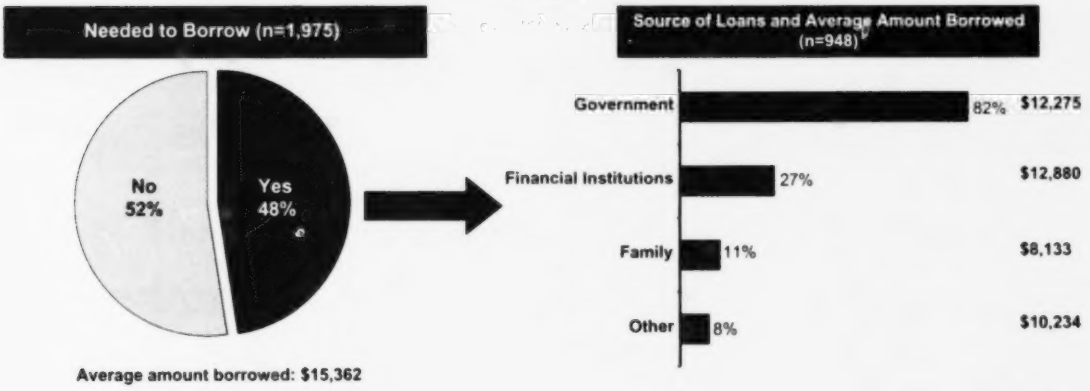
[1]base is those students with amount outstanding > $0

4.3 Financing Post-1999 Studies

Returning to study after graduating meant borrowing money for many graduates, some of whom had already taken on debt to finance their 1999 program. Nearly half (48%) of all graduates who had returned to study said they had borrowed money. On average, these graduates borrowed $15,362 (Figure 4.7). As with borrowing for the 1999 program, government student loans were the main source of funds, with 82% of these graduates borrowing $12,275. Another 27% turned to financial institutions, borrowing $12,880, and 11% received loans from family members, borrowing an average of $8,133. Eight percent of graduates borrowed money from other sources, taking on an average debt of $10,234.

Figure 4.7

Borrowing to Finance Post-1999 Studies
(n=4,202)



Some groups of graduates were more likely to borrow than others. While there were no significant differences between men and women, or French- and English-speaking graduates, the tendency to borrow for post-1999 studies did vary with prior educational attainment, degree level, major field of study and earnings (Table 4.12). Those most likely to take on debt for further studies included those who had obtained their first postsecondary credential in 1999 (entered 1999 studies with high school diploma) (54%), had studied in the field of Agricultural & Biological Sciences (62%) or obtained a Diploma/Certificate in 1999 (55%). Sixty-four percent of those earning $500 or less also reported borrowing. Those least likely to have taken on debt had completed a prior postsecondary degree at or above the Bachelor's level (22%), had completed a program in the Health Professions (26%) or obtained a Master's/Doctorate in 1999 (15%). In addition, under 30% of those earning over $700 per week reported borrowing to finance further studies.

Table 4.12

Borrowed to Finance Post-1999 Studies Among Graduates Who Returned to Study Post-1999

	weighted base	% Yes
Gender		
Male	823	46%
Female	1,150	49%
Language		
English	1,744	48%
French	165	48%
Prior Level of Education		
High school diploma	1,397	**54%**
PSE below Bachelor's degree	274	41%
Bachelor's degree or above	297	22%
Major Field of Study		
Education	193	37%
Humanities	279	59%
Social Sciences	477	56%
Commerce & Administration	286	29%
Agricultural & Biological Sciences	291	**62%**
Engineering & Applied Sciences	114	46%
Health Professions	108	**26%**
Mathematics & Physical Sciences	158	38%
Degree Level		
Bachelor's degree	1,669	51%
Diploma/Certificate	117	**55%**
Master's/Doctorate	147	15%
Weekly Employment Earnings		
less than $500	890	**64%**
$501 - $700	361	44%
$701 - $900	244	27%
$901- $1,250	146	**19%**
more than $1,250	67	28%

Table 4.13 shows the pattern of borrowing among the different loan sources. A new trend seems to be emerging in high-end borrowing: while just two percent of government student loans were in the range of $30,000 or more, one-in-ten of those who borrowed from financial institutions took on debt of this magnitude.

When compared to borrowing for the 1999 program, and the borrowing patterns of the Class of 1996, we find that the tendency to use sources other than government for heavy borrowing has increased.

Table 4.13

Range of Borrowing for Post-1999 Studies	weighted base	less than $5,000	$5,000 - $14,999	$15,000 - $29,999	$30,000 or more
All Sources	**912**	**11%**	**45%**	**33%**	**11%**
Government	752	8%	57%	33%	2%
Financial Institutions	246	19%	46%	26%	10%
Family Members	105	44%	35%	18%	4%
Other Sources	75	32%	41%	19%	8%

Graduates have had limited success paying down debt incurred for post-1999 studies, but then, they have had just two years or less in which to take out a loan *and* begin payments. Among the various graduate groups, the very same patterns that exist for borrowing appear again for average amount outstanding. There was no significant difference in either the average amount borrowed or the amount outstanding, between English- and French-speaking graduates (Table 4.14). However, male and female graduates who borrowed for their post-1999 studies had significantly different borrowing patterns. On average, men borrowed $16,636, 15% more than women ($14,506). Because they had borrowed more in the first place, men ($15,590) owed significantly more than women ($13,918).

Table 4.14

Average Total Debt Outstanding in 2001 for Post-1999 Studies	weighted base	Total Amount Borrowed post-1999	Average Amount Outstanding (includes $0 outstanding)	Percent change over two years
Gender				
Male	366	$16,636 a	$15,590 a	6%
Female	545	$14,506 b	$13,918 b	4%
Language				
English	814	$15,461 a	$14,662 a	5%
French	78	$14,166 a	$13,948 a	2%
Major Field of Study				
Education	68	$13,710 ab	$13,286 ab	3%
Humanities	158	$12,816 b	$12,105 b	6%
Social Sciences	255	$14,317 ab	$13,527 ab	6%
Commerce & Administration	81	$16,625 ab	$15,007 ab	10%
Agricultural & Biological Sciences	180	$19,893 a	$19,197 a	3%
Engineering & Applied Sciences	53	$15,589 ab	$15,141 ab	3%
Mathematics & Physical Sciences	60	$14,821 ab	$13,980 ab	6%
Labour Force Status				
Employed	598	$13,795 b	$12,833 b	7%
Unemployed	127	$15,024 b	$14,308 b	5%
Not in the Labour Force	187	$20,597 a	$20,241 a	2%

Means with the same letter are not significantly different (ANOVA and post-hoc tesing, $p<0.05$)
sample size<50 excluded

A comparison of borrowing patterns by field of study indicates that the two extremes of borrowing occurred among graduates of Agricultural & Biological Sciences, who borrowed $19,893, and Humanities graduates who borrowed $12,816. The same pattern exists in amount of debt outstanding: Agricultural & Biological Sciences graduates owed $19,197 and Humanities graduates owed $12,105.

The tendency to borrow heavily was significantly greater among those currently not in the labour force ($20,597) as compared to employed graduates ($13,795). Given these differences in borrowing patterns, it is not surprising to find that those not in the labour force owed the most ($20,241) and employed graduates the least ($12,833).

Province of study and residence in 2001 did not have a significant impact on borrowing patterns.

Table 4.15 illustrates the pattern of debt outstanding for loans from government and financial institutions.

Table 4.15

Current Debt Outstanding for Loans Taken To Finance Post-1999 Studies*

Loan Source	weighted base	zero	less than $5,000	$5,000 - $14,999	$15,000 - $29,999	more than $30,000
All sources	912	5%	11%	43%	31%	10%
Government	740	2%	9%	56%	32%	2%
Financial Institutions	241	3%	21%	43%	23%	9%
Family Members	104	5%	40%	36%	15%	4%
Other Sources	70	10%	35%	30%	16%	9%

*Don't know/refused responses excluded from analysis

As Table 4.16 illustrates, graduates who borrowed heavily to finance further studies still owe substantial amounts of their loans, again reflective of the very short amount of time elapsed since first borrowing the money for post-1999 studies.

Table 4.16

Total Amount Borrowed (all sources) Post-1999 Compared to Total Outstanding in 2001 for Post-1999 Debt

		Amount Outstanding 2001				
	weighted base	zero	less than $5,000	$5,000 - $14,999	$15,000 - $29,999	more than $30,000
Amount Borrowed post-1999						
less than $5,000	95	8%	92%			
$5,000 - $14,999	401	2%	4%	94%		
$15,000 - $29,999	298	<1%		6%	93%	<1%
$30,000 or more	98			1%	9%	90%

*Don't know/refused responses excluded from analysis

4.4 Borrowing in Both Pre- and Post-1999 Periods

Borrowing to finance their education was not a new experience for a good proportion of graduates: of those who borrowed to finance their 1999 program and returned to study after graduating, 57% also borrowed to finance post-1999 studies. For some, however, returning to study meant taking on debt for the first time. Of those who *did not* incur debt for their pre-1999 program and returned for further education, 36% borrowed to finance their post-1999 studies.

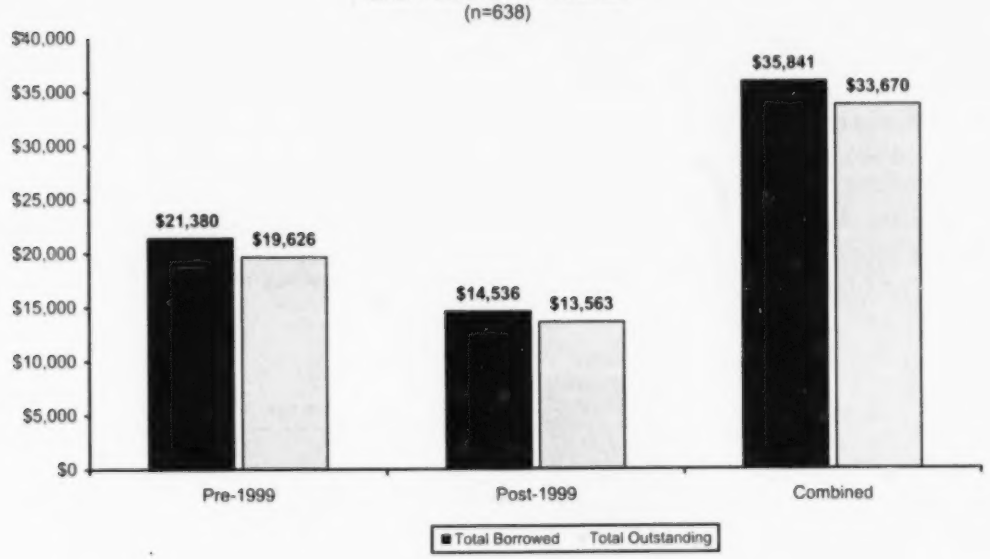
Overall, graduates who had borrowed in both periods accumulated a total average debt of $35,841 by two years after graduation (Figure 4.8). This is $7,588 (27%) more than the total debt accumulated by the Class of 1996 by *four* years after graduation.

The combined debt outstanding for 1999 graduates in 2001 was $33,670, down just 6% from the total amount borrowed.

Looking at the separate borrowing periods, it is apparent that these graduates have had relatively equal success reducing both pre-1999 (reduced by 8%) and post-1999 (reduced by 7%) debt.

Figure 4.8

Average Amount Borrowed & Outstanding in 2001 Among Graduates Who Borrowed in Both Pre-1999 and Post-1999 Periods
(n=638)

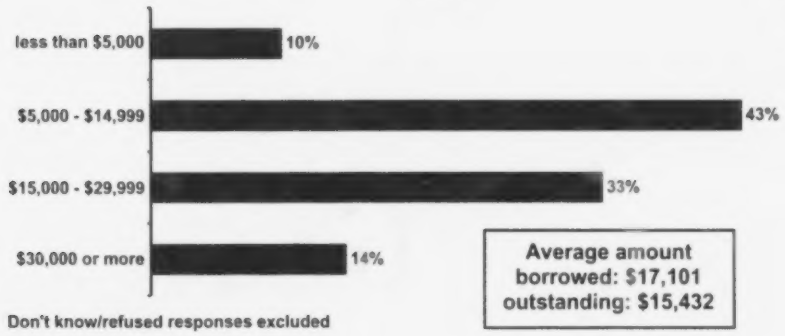


That a relatively short amount of time had transpired since graduation may help to explain the low rate of repayment. In addition, it should be noted that government student loan programs allow a six-month grace period after program completion before repayment must begin and allow suspension of payments if the person returns to study. All of these factors play a part in the high outstanding debt.

For those graduates who took on debt for the first time in order to pursue further study, borrowing patterns were varied (Figure 4.9). For some (14%), the choice to return to school meant borrowing upwards of $30,000. Over half (53%), however, borrowed less than $15,000.

Figure 4.9

Range of Borrowing for Post-1999 Studies Among Graduates Who DID NOT Borrow to Finance the 1999 Program
(n=301)



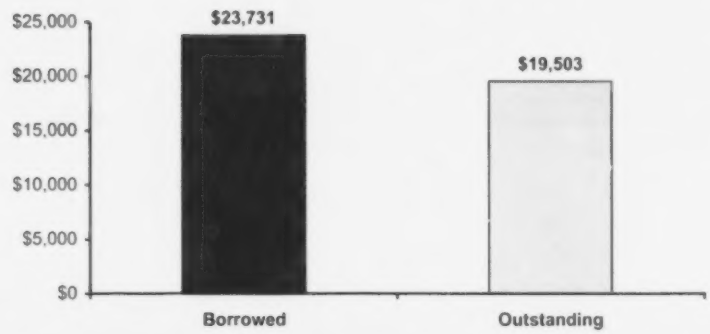
4.5 Current Overall Financial Status

Total Borrowed and Outstanding in 2001 for all Studies

The financial status profile of the Class of 1999 in 2001 shows that the total average debt accumulated from both pre-1999 and/or post-1999 periods stood at $23,731 (Figure 4.10). In 2001, graduates still owed an average of $19,503, but had repaid $4,228, thereby reducing their debt by 18%.

Figure 4.10

Average Total Amount Borrowed & Outstanding in 2001
(n = 2,805)



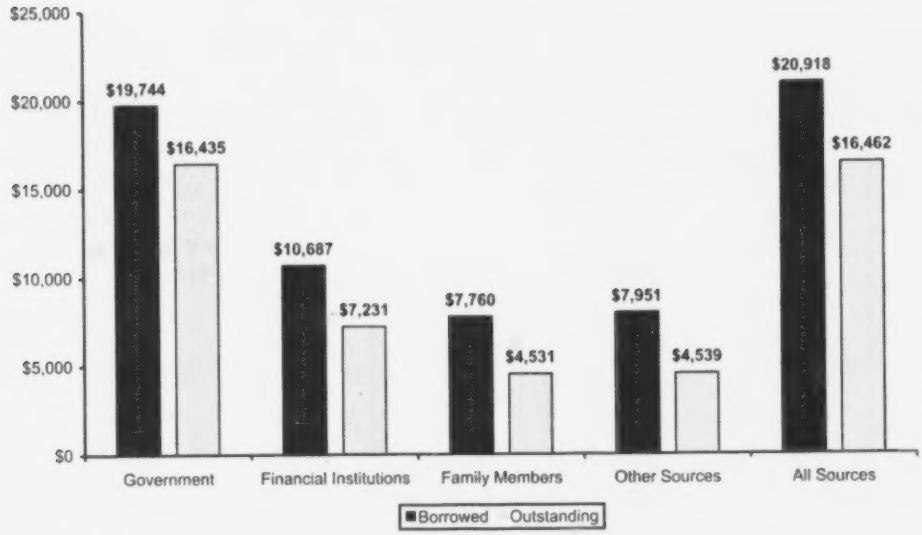
Includes all graduates who borrowed in pre- or post-1999 period or both.

Total Borrowed and Outstanding in 2001 for the 1999 Program

Borrowing from all sources to finance the1999 program amounted to an average of $20,918. By 2001, the amount remaining to be repaid on all loans stood at $16,462, a drop of $4,456 or 21% (Figure 4.11).

Figure 4.11

Average Amount Borrowed & Outstanding in 2001
For the 1999 Program



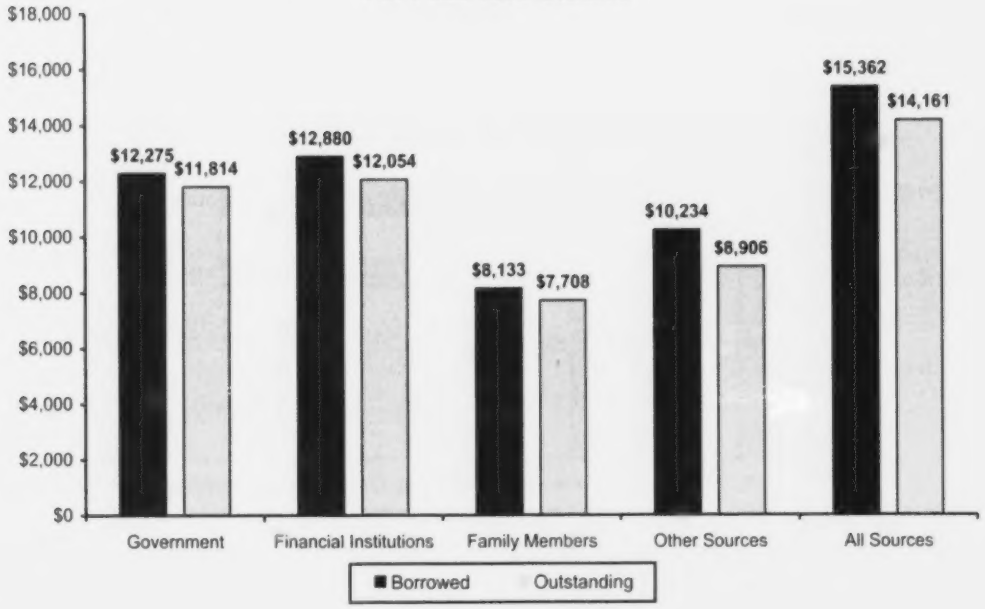
Relative repayment success varies by loan source: having borrowed an average of $19,744 from government, after two years graduates still owed $16,435, a reduction of 17%. By contrast, graduates were able to reduce their debt to financial institutions by 32%, and to family members and other sources by 42-43%.

Total Borrowed and Outstanding in 2001 for Post-1999 Studies

Borrowing from all sources to finance post-1999 studies amounted to an average fo $15,362. In 2001, the amount remaining to be repaid on all loans stood at $14,161, a drop of $1,201 or 8% (Figure 4.12).

Figure 4.12

Average Amount Borrowed & Outstanding in 2001 For Post-1999 Studies



With the exception of loans from other sources (reduced by 13%), the proportion by which graduates were able to reduce their debt did not vary much (4-6%).

4.6 Repayment Experience (Loans Taken Out to Finance the 1999 Program)

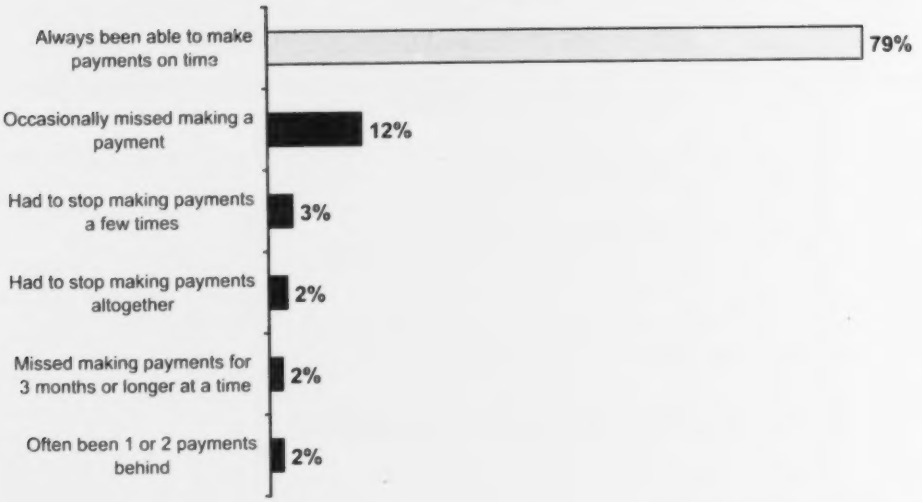
This section will examine repayment experiences for the top two loan sources: government and financial institutions.

Paying Back Loans

In spite of the fact that graduates borrowed more than their predecessors, their ability to repay does not seem to be affected; 79% reported they had always been able to make their payments on time (Figure 4.13).

Figure 4.13

Overall Repayment Experience*
(Loans Taken Out to Finance the 1999 Program)
(n=1,346)


Always been able to make payments on time
79%
Occasionally missed making a payment
12%
Had to stop making payments a few times
3%
Had to stop making payments altogether
2%
Missed making payments for 3 months or longer at a time
2%
Often been 1 or 2 payments behind
2%

*among those with outstanding loans with government or financial institutions; does not include Don't know/refused or missing responses.

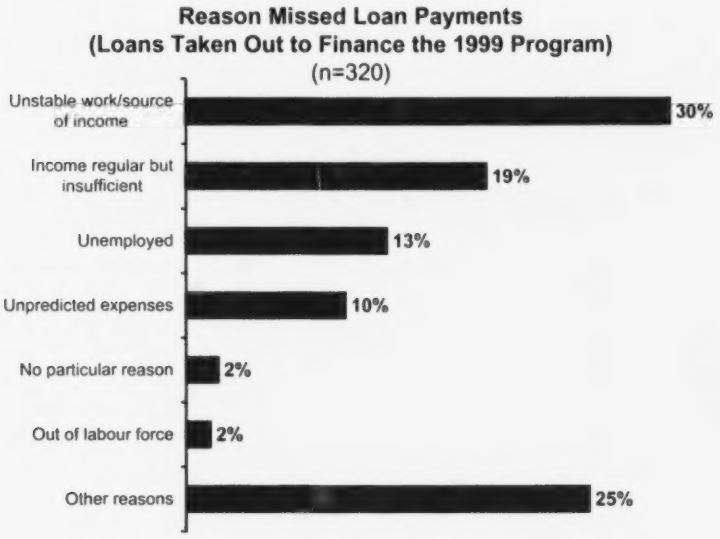
Relatively few graduates reported having problems with paying down their loan. Just 12% said they had occasionally missed a payment; four percent reported getting behind in their payments, either by one or two payments, or for three months or longer at a time. Three percent reported they had actually stopped making payments a few times, and two percent said they had stopped altogether.

Depending on their financial and employment situation, certain groups of graduates were more likely to experience difficulty repaying loans taken out to finance the 1999 program. The most obvious link is the amount originally borrowed. Of those who borrowed less than $15,000, 85% said they had never experienced any problems; by contrast, 70% of graduates who had borrowed $30,000 or more reported the same repayment experience. Similarly, graduates earning less than $500 per week (70%) or who were unemployed (68%) were somewhat less likely to report never having had a problem.

The type of loan also seemed to make a difference, with 72% of those who borrowed from government, and 83% of those with loans from financial institutions, reporting no difficulties in repayment.

The top reasons given by those who had experienced overall difficulty in repaying their pre-1999 loans related to employment and income (Figure 4.14). Nearly half (49%) attributed their problems to unstable work or income, or a regular but insufficient income. A further 13% said their difficulties were due to unemployment.

Figure 4.14

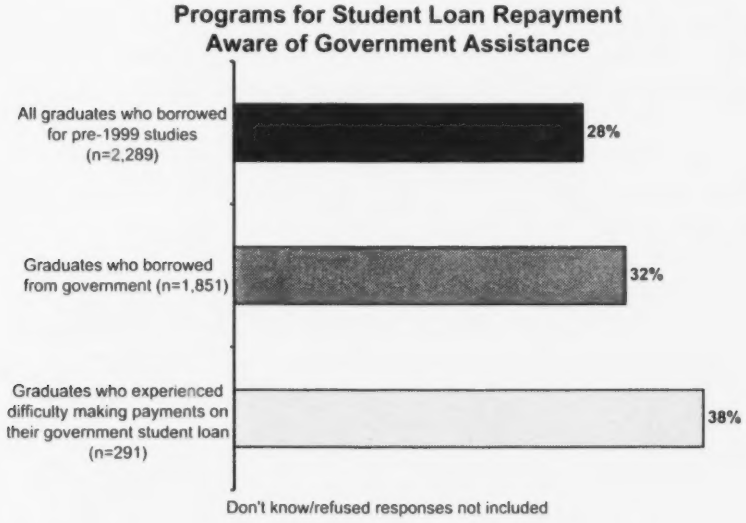


One-in-ten reported they had met with difficulties as a result of unexpected expenses. A further 25% gave other reasons. Only two percent had no particular reason to explain their difficulties.

Government Assistance for Repayment

All graduates who had borrowed money to finance their 1999 program were asked about their awareness of government programs to assist in student loan repayment. As it turns out, the majority of graduates who borrowed money from any source had not heard of any government assistance programs - just 28% had heard of these programs (Figure 4.15).

Figure 4.15


Programs for Student Loan Repayment
Aware of Government Assistance
All graduates who borrowed for pre-1999 studies (n=2,289)
28%
Graduates who borrowed from government (n=1,851)
32%
Graduates who experienced difficulty making payments on their government student loan (n=291)
38%
Don't know/refused responses not included

While still low, awareness of programs for student loan repayment is greater (32%) among those who actually borrowed from government, and greatest (38%) among those who had experienced difficulty in repaying their government student loan.

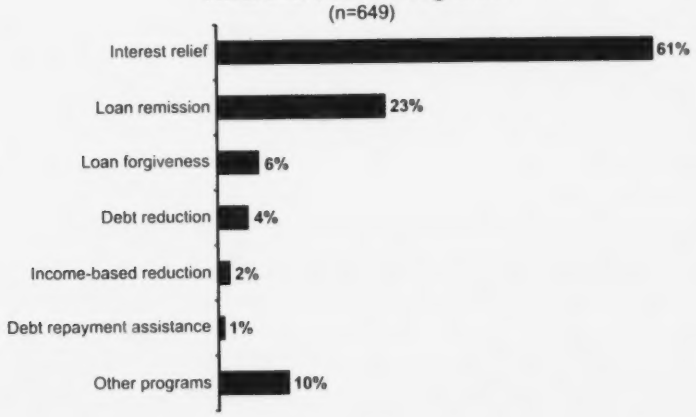
There was no significant difference between provinces (province of graduation) in the proportion of graduates who said they were aware of government assistance programs. It is also apparent that little progress has been made in increasing awareness among those using the government student loan program. Looking at the Class of 1996 four years after graduation, 36% of those who still owed money on their government student loans said they were aware of government assistance programs. This compares to 33% of the Class of 1999 with outstanding government student loans who said they knew of these programs.

Of those graduates who borrowed from any source and said they were aware of the existence of government assistance programs, interest relief programs were the ones most commonly (61%) known (Figure 4.16). Less well-known were programs of loan remission (23%) and forgiveness (6%). Fewer graduates mentioned programs of debt reduction (4%), income-based reduction (2%) and debt repayment assistance (1%). One-in-ten graduates mentioned other programs or did not know.

Figure 4.16

Aware of Which Programs?

(n=649)



Of those graduates who borrowed from government to finance their 1999 program, 19% ended up applying for assistance, and the majority (87%) of these graduates were successful in these applications.

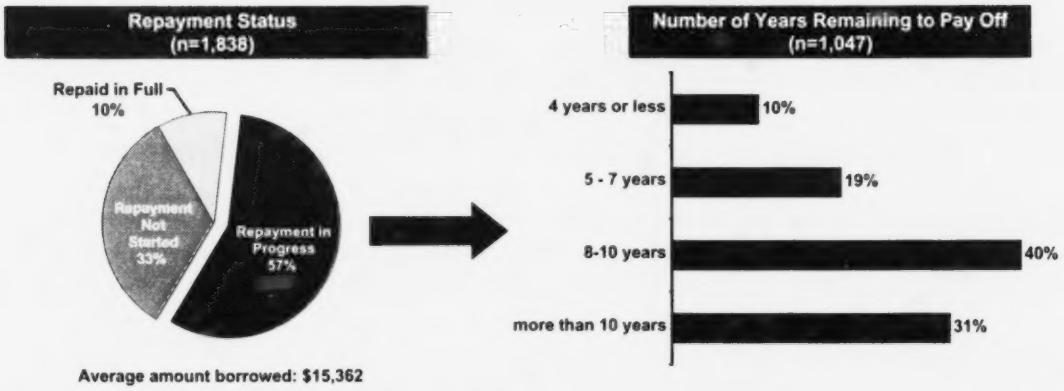
Repayment of Student Loans

Paying Off Government Loans (taken out to finance the 1999 program)

Two years after graduation, one-in-ten 1999 graduates who had taken out government student loans to finance their 1999 program reported that they had paid off their loan. While a further 57% were still repaying their loan, fully one-third had not yet started to repay (Figure 4.17).

Figure 4.17

Debt Repayment for Loans Taken Out to Finance the1999 Program
Government Student Loans
(n=1,838)



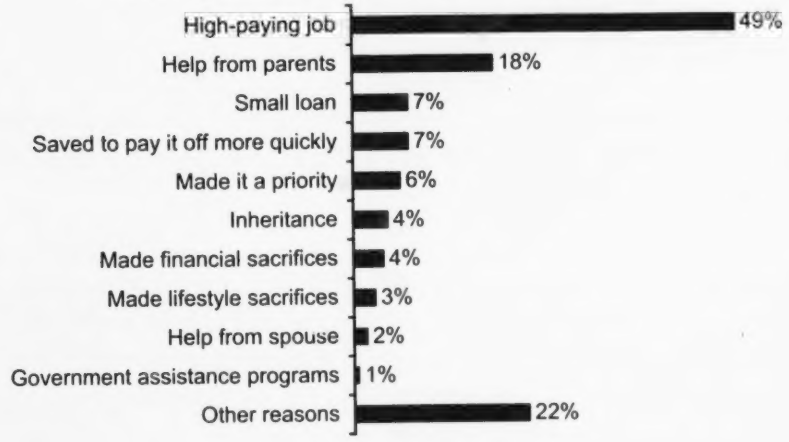
Graduates still working to repay their loans have a long road ahead of them - 71% of those currently repaying their loans do not expect to finish for eight years or more. On the other hand, 29% expect to have their government loan paid off within seven years. The typical repayment period for government student loans is 10 years.

Of those who reported that they had not yet started to repay, nearly three-quarters (74%) claimed that they expected to start repayment within two years.

What factors determined a graduate's ability to pay off their government loans within a relatively short period of time? Although the size of the original loan undoubtedly has an impact on the size of payments and the length of the term, having a small loan (7%) was not the reason given most often by graduates for their success in erasing debt (Figure 4.18). Rather, the financial resources available to a graduate, including a high-paying job, help from family members, and taking measures to make debt repayment a priority, is the most important factor. Specifically, nearly half (49%) mentioned that having a high-paying job enabled them to pay off their loan. Twenty percent said they had gotten help from their parents or spouse, and a further 20% reported they had made some kind of sacrifice or made their debt repayment a priority.

Figure 4.18

Why Successful in Paying Off Government Student Loans* (Taken Out to Finance the 1999 program)


High-paying job 49%
Help from parents 18%
Small loan 7%
Saved to pay it off more quickly 7%
Made it a priority 6%
Inheritance 4%
Made financial sacrifices 4%
Made lifestyle sacrifices 3%
Help from spouse 2%
Government assistance programs 1%
Other reasons 22%

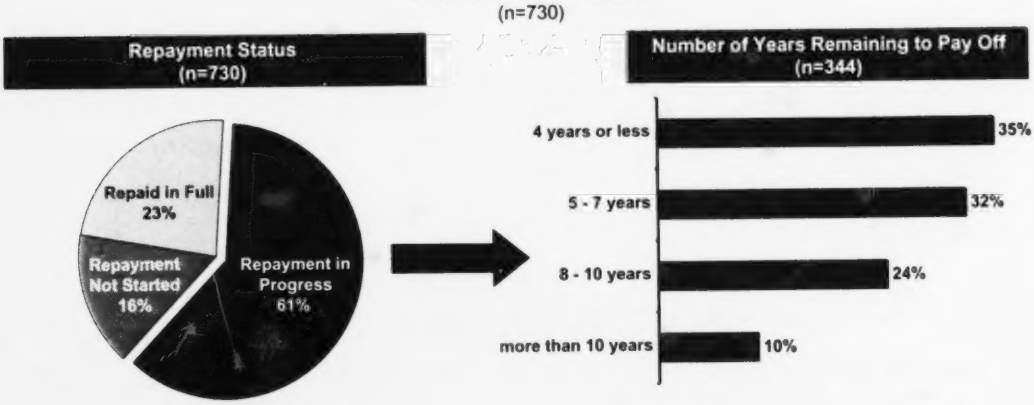
*Percentages sum to greater than 100% because of multiple responses

Paying Off Loans from Financial Institutions (taken out to finance the 1999 program)

Maritime university graduates were somewhat more successful in their repayment of loans from financial institutions: by two years following graduation, nearly one-quarter (23%) had completely repaid these loans (as compared to just 10% of those with government loans). Although 16% had not yet begun to repay, 61% were making payments (Figure 4.19).

Figure 4.19

Debt Repayment for Loans Taken Out to Finance the1999 Program Financial Institutions
(n=730)


Repayment Status (n=730)
Repaid in Full 23%
Repayment Not Started 16%
Repayment in Progress 61%
Number of Years Remaining to Pay Off (n=344)
4 years or less 35%
5 - 7 years 32%
8 - 10 years 24%
more than 10 years 10%

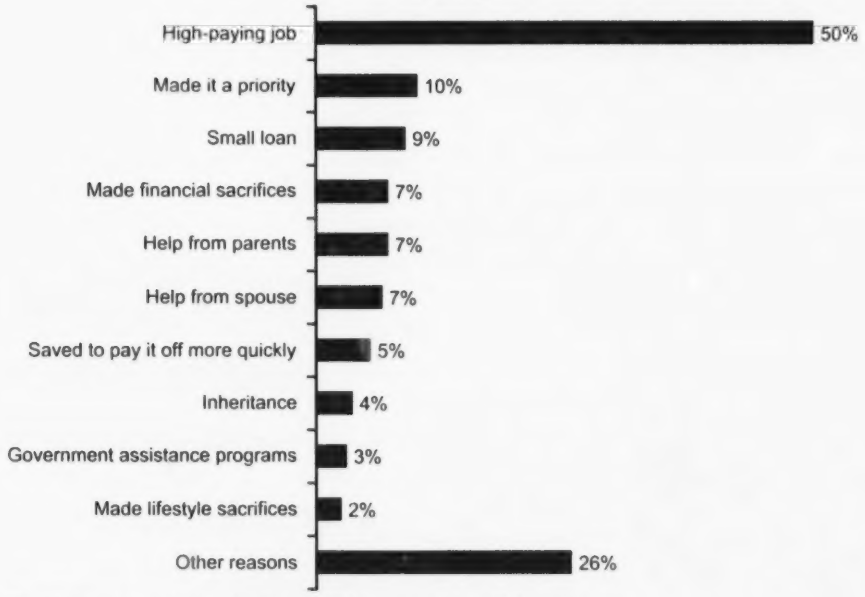
Of those graduates who had not yet begun to repay their loans from financial institutions, three-quarters expected that they would begin repayment within two years.

For the most part, paying down loans from financial institutions seems to be a higher priority than is paying down government student loans. Most (67%) graduates who were currently making payments on these loans reported that they would be finished within seven years. Again, just 29% of those paying down government loans said they would be done within this time frame. One reason for this difference could be the tendency for graduates to borrow less from financial institutions than government. In addition, loans from financial institutions normally require a co-signer and interest payments must be made on these loans while the student is still in school[7]. An active (i.e., making monthly interest payments) relationship with the lender while studying and the graduate's responsibility to the co-signer may both contribute to the apparently higher priority placed on these loans.

Graduates tended to give similar reasons for paying off their loans from financial institutions as they did for paying off government student loans (Figure 4.20), with half citing their high-paying job as the reason for their success. Fourteen percent received help from parents or their spouse, and a further 24% reported they had made a personal sacrifice, including saving to pay their loan off more quickly. A small percentage (9%) said the reason they were able to pay off their loan was that they had borrowed a small amount in the first place.

Figure 4.20

Why Successful in Paying Loans From Financial Institutions*
(Taken Out to Finance the 1999 Program)
(n=168)



*Percentages sum to greater than 100% because of multiple responses

[7]Canada Millennium Scholarship Foundation. 2002. The Price of Knowledge: Access and Student Finance in Canada.

4.7 Impact of Student Debt Load on Employed Graduates' Economic Well-being

Maritime graduates of the Class of 1999 have borrowed more money than prior graduating classes[8], but they are also earning more than their predecessors. What is the net impact on their financial status? To answer this question, we calculated a debt-to-earnings ratio[9], which is the proportion of a graduate's monthly earnings that go toward paying down student debt. Because the debt is expressed relative to income, the measure gives a more accurate sense of the actual impact of debt.

The average debt burden shouldered by graduates repaying their loans stood at 13% in the reference week (Table 4.17). This is up slightly from the average debt-to-earnings ratio calculated for the Class of 1996, which stood at 11% four years after graduation.

Behind the average we find a spectrum of experiences based on graduate income, and find that making debt payments is a much heavier burden for some than it is for others. The findings show that those who reported earnings in the highest range (more than $1,250 per week, or $5,417 per month) paid ($480) significantly more per month than graduates in all other income ranges; however, their debt-to-earnings ratio was the lowest, standing at just 7%. By contrast, those reporting earnings in the lowest range (less than $500 per week, or $2,167 per month) paid the least amount per month on their loans ($254), but carried the greatest burden, with debt payments consuming 21% of their income.

It is abundantly clear that the dialogue on student debt cannot take place without considering the relative impact loan payments have on graduate's income. Some advances are already underway in Canada: as reported in The Price of Knowledge[10], there is "a new trend toward debt reduction initiatives designed either to recruit or retain postsecondary graduates. These include specific loan forgiveness programs for jobs that...do not pay well (e.g., child care)."

Job status also has a significant impact on debt burden. Graduates who reported having a permanent job (12%) had a significantly lower debt-to-earnings ratio than did those graduates with a non-permanent job (15%). Interestingly, debt burden appeared to have no significant impact on job satisfaction, a link identified in the Class of 1996 four years after graduation. Recalling the findings in section 4.1, job satisfaction depended on a close relationship to one's studies and the degree to which university skills were being put to use, just as much as it did on wages. So, to find that increasing debt burden did not have a significant negative impact on job satisfaction points to the fact that graduates do not "blame" their job for their debt situation.

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[8] As compared to the Class of 1995 (National Graduate Survey) and MPHEC Class of 1996.

[9] The debt-to-earnings ratio includes the following components: 1) The total average monthly debt payment for graduates employed in the week prior to being interviewed. This includes payments for loans from all sources taken out to finance studies in both the pre-1999 and post-1999 periods. "Don't know" / refused responses, and graduates whose government student loan payments are lumped with other personal loans are excluded. 2) The total standardized monthly earnings. This includes earnings from employment, recalculated on a monthly basis for those whose earnings are reported hourly, weekly, bi-weekly, or annually in the survey. 3) The debt-to-earnings ratio is the monthly debt payment expressed as a percentage of monthly earnings.

[10] Canada Millennium Scholarship Foundation Research Series. 2002. The Price of Knowledge: Access and Student Finance in Canada.

Table 4.17

Total Monthly Loan Repayments[1] (1999 and post-1999 loans) and Debt to Earnings Ratio for Employed Graduates

	weighted base	Average Total Monthly Payment*	Monthly Debt Payment as a Proportion of Monthly Earnings*
Overall	1,366	$336.18	13%
Range of weekly employment earnings			
less than $500	333	$253.66 c	**21%** a
$501 - $700	374	$322.81 b	12% b
$701 - $900	341	$364.09 b	11% cd
$901- $1,250	219	$378.38 b	8% de
more than $1,250	96	$480.32 a	**7%** e
Status of Job			
Permanent	1,032	$342.50 a	**12%** b
Not Permanent	334	$316.67 a	**15%** a
Job Satisfaction			
Very Dissatisfied	70	$354.31 a	18% a
Dissatisfied	292	$322.76 a	14% a
Satisfied	743	$337.89 a	12% a
Very Satisfied	261	$341.47 a	12% a

*means with the same letter are not significantly different - groups based on ANOVA post-hoc analysis ($p<0.05$)

[1]includes only graduates making payments; does not include graduates for whom government student loan payments included payments for other personal loans

Examining the findings further, we find that certain groups of graduates were hit harder by their debt payments than were others (Table 4.18). For example, although there was no significant difference between the average total monthly debt payments of male and female graduates, women experienced a slightly (but significant) greater debt burden (14%) than did men (12%). This difference may be attributed to the gender-based difference in earnings explored under section 4.1.

Table 4.18

Total Monthly Loan Repayments[1] (1999 and post-1999 loans) and Debt to Earnings Ratio (DER) for Employed Graduates

	weighted base	Average Total Monthly Payment*	Monthly Debt Payment as a Proportion of Monthly Earnings*
Overall	1,366	$336	13%
Gender			
Male	553	$346 a	12% b
Female	813	$330 a	14% a
Language spoken most often at home			
English	1,214	$336 a	13% a
French	129	$341 a	13% a
Degree Level			
Bachelor's degree	1,103	$314 c	13% b
First Professional	80	$547 a	18% a
Diploma/Certificate	50	$295 c	11% b
Master's/Doctorate	132	$411 b	10% b
Field of Study			
General Arts & Science	5	- -	- -
Education	212	$324 ab	13% ab
Fine & Applied Arts	35	$316 b	16% a
Humanities	108	$327 ab	17% a
Social Sciences	266	$340 ab	16% a
Commerce & Administration	233	$301 b	10% ab
Agricultural & Biological Sciences	106	$305 b	17% a
Engineering & Applied Sciences	139	$325 ab	9% b
Health Professions	168	$420 a	11% ab
Mathematics & Physical Sciences	94	$368 ab	10% ab
Information Technology	97	$401 -	10% -
Prior Level of Education			
High school diploma	721	$309 b	13% a
PSE below Bachelor's degree	260	$337 b	13% a
Bachelor's degree or above	384	$387 a	13% a
Parent's Combined Level of Education			
Less than Bachelor's degree	846	$335 a	13% a
One parent with Bachelor's degree or above	272	$357 a	12% a
Both Parents with Bachelor's degree or above	214	$322 a	12% a
Province of Residence (2001)			
PEI	69	$285 b	14% a
NS	440	$303 b	14% a
NB	344	$320 b	13% a
outside Maritimes	513	$383 a	12% a

*means with the same letter are not significantly different - groups based on ANOVA post-hoc analysis ($p<0.05$)

- means not included in post-hoc analysis

[1] does not include graduates for whom government student loan payments included payments for other personal loans; includes only graduates making payments.

Other groups of graduates experiencing the greatest debt burdens were those who completed a First Professional degree (DER=18%), and graduates of Agricultural & Biological Sciences (DER=17%) and Humanities programs (DER=17%).

Although graduates who had enrolled in their 1999 program with at least a Bachelor's degree or above tended to make higher monthly debt payments, they did not suffer a greater debt burden than those who entered their 1999 program with less than a Bachelor's degree.

Even though graduates whose parents both had less than a Bachelor's degree borrowed significantly more than graduates with at least one parent with a Bachelor's degree or above (Table 4.9), there are no significant differences in the debt-to-earnings ratio by level of parents' education.

Finally, the findings showed no difference among the three Maritime provinces (residence in 2001) in graduates' debt burdens. Interestingly, those graduates who were living outside the region in 2001 made higher payments than Maritime residents, but experienced the same relative debt burden, again, a reflection of the difference in average earnings.

The findings illustrated in Table 4.18 revealed statistically significant differences in the mean debt-to-earnings ratio according to gender, and level and field of study. Looking at the distribution of graduates across debt-to-earnings ratio ranges (Table 4.19), we find that the differences tend to lie in the extremes. For example, female graduates are somewhat more likely (17%) than their male counterparts (11%) to spend over 20% of their monthly earnings on paying their student debt; they are also somewhat less likely (19%) than male graduates (24%) to have a debt burden of under 5%.

There is also significant variation in the distribution among debt-to-earnings ratio ranges by field of study. For example, nearly one-third of Engineering & Applied Sciences (31%) and Mathematics & Physical Sciences (30%) graduates had a debt-to-earnings ratio of less than five percent. At the other extreme, while just 2% of Engineering & Applied Sciences graduates had debt burdens greater than 20%, many more Humanities (24%) and Social Sciences (24%) shouldered debt burdens in this range.

Table 4.19

Debt to Earnings Ratio (by range) for Employed Graduates Among Graduate Groups

		Range of Debt-to-Earnings Ratios				
	weighted base	0.00-5.00	5.01-10.00	10.01-15.00	15.01-20.00	20.01+
Overall	1,366	21%	30%	23%	12%	15%
Gender						
Male	553	24%	31%	24%	11%	11%
Female	813	19%	29%	23%	12%	**17%**
Degree Level						
Bachelor's degree	1,103	20%	29%	23%	12%	15%
First Professional	80	14%	34%	23%	7%	**23%**
Diploma/Certificate	50	22%	29%	31%	7%	12%
Master's/Doctorate	132	28%	35%	21%	10%	7%
Field of Study						
General Arts & Science	5	-	-	-	-	-
Education	212	22%	29%	22%	13%	14%
Fine & Applied Arts	35	-	-	-	-	-
Humanities	108	14%	25%	22%	15%	**24%**
Social Sciences	266	18%	29%	19%	10%	**24%**
Commerce & Administration	233	23%	**32%**	26%	10%	10%
Agricultural & Biological Sciences	106	15%	27%	22%	17%	**19%**
Engineering & Applied Sciences	139	**31%**	**30%**	25%	12%	2%
Health Professions	168	14%	34%	31%	11%	9%
Mathematics & Physical Sciences	94	**30%**	29%	23%	7%	11%
Information Technology	97	28%	26%	29%	10%	6%

- cell size too small for reliable analysis

[1] does not include graduates for whom government student loan payments included payments for other personal loans; includes only graduates making payments.

It is clear from the findings that some groups of graduates are doing better than others when it comes to the proportion of their earnings they dedicate to student loan payments. In this context, it may be useful to design programs to teach students money management skills and to help students to clearly understand the long term impact of borrowing money to subsidize their education. Responsibility for debt lies largely with the student, but the provision of targeted information by lending agencies and/or institutions might go a long way to helping students and graduates cope with their debt.

5. GRADUATE OUTLOOK

So far, we have considered many important aspects of the lives of 1999 Maritime university graduates such as the program completed in 1999, relative performance in the job market, returning to study, and paying for their educational investment. These are all important and interrelated factors impacting upon graduates' perceptions of their jobs and their university experiences.

Table 5.1 and 5.2 present the relationship between these various key factors and graduates' level of satisfaction with their current level of education, and employment and financial situations.

Looking at the Class overall, it is apparent that graduates are most satisfied with the level of education they have attained, with eight-in-ten graduates claiming satisfaction with this aspect of their lives. Two-thirds said they were satisfied with their current employment situation. The aspect with which they are least satisfied is their financial situation, with less than half (46%) reporting satisfaction.

Table 5.1

Satisfaction with Current Life Situation							
	weighted base	employment situation		level of education		financial situation	
		satisfied	dissatisfied	satisfied	dissatisfied	satisfied	dissatisfied
Overall	**4,202**	**66%**	15%	**80%**	4%	**46%**	25%
Degree Level							
Bachelor's degree	3,250	64%	16%	77%	5%	42%	27%
First Professional	147	**80%**	**7%**	**95%**	1%	52%	23%
Diploma/Certificate	272	68%	13%	77%	5%	51%	24%
Master's/Doctorate	533	74%	**8%**	90%	1%	**63%**	**13%**
Field of Study							
General Arts & Science	25	60%	13%	81%	-	59%	13%
Education	625	70%	10%	86%	3%	50%	21%
Fine & Applied Arts	107	**47%**	21%	70%	10%	**23%**	**43%**
Humanities	442	61%	**22%**	79%	6%	36%	31%
Social Sciences	895	58%	20%	74%	6%	37%	32%
Commerce & Administration	663	67%	14%	76%	5%	53%	20%
Agricultural & Biological Sciences	443	62%	15%	81%	5%	33%	34%
Engineering & Applied Sciences	326	**78%**	**8%**	83%	3%	58%	16%
Health Professions	365	75%	9%	84%	2%	61%	**17%**
Mathematics & Physical Sciences	311	72%	9%	82%	1%	56%	18%
Information Technology	229	79%	4%	86%	1%	63%	**11%**
Level of Prior Education							
High school diploma	2,410	63%	17%	76%	5%	41%	28%
PSE below Bachelor's degree	674	66%	15%	77%	5%	45%	25%
Bachelor's degree or above	1,113	72%	10%	**88%**	1%	56%	18%

Respondents answered on a 5-point scale, where 1=very dissatisfied and 5=very satisfied. Here, 1,2=dissatisfied and 4,5=satisfied. Findings for the middle ranking (3) are not shown

- cell size too small (<50) for reliable analysis

Don't know/refused responses not shown

Field of study has an important impact on perception of these aspects. By far the most satisfied with their employment situation were graduates of Engineering & Applied Sciences (78% satisfied), Health Professions (75%) and Mathematics & Physical Sciences (72%). Least satisfied were graduates of Fine & Applied Arts programs (47%).

This same pattern is found in graduates' perceptions of their financial situation, only the differences are more polarized. Just 23% of Fine & Applied Arts graduates reported they were satisfied, while 56-61% of Engineering & Applied Sciences, Health Professions and Mathematics & Physical Sciences graduates

reported this level of satisfaction. This amounts to a 38 percentage-point difference. Graduates of Master's/ Doctoral programs who were also earning the most were the most satisfied (63% satisfied) with their current financial situation. This compares to less than half (42%) of Bachelor's graduates who said they were satisfied.

The least difference (16 percentage points) among fields existed in the level of satisfaction with educational attainment, but again, Fine & Applied Arts graduates reported the lowest level of satisfaction.

Not surprisingly, those with the highest levels of education (Master's/Doctorate and First Professional, and graduates who had a prior degree at or above the Bachelor's level) also expressed the greatest satisfaction (88-95% reported being satisfied) with their educational achievement.

Having a rewarding job is correlated to satisfaction with general life situation (Table 5.2). Among the most important drivers of graduates' satisfaction when it comes to educational attainment are job satisfaction and job quality (as measured by the extent of relatedness to studies and skill use). That is, the ability to put education to use becomes the yardstick by which the education itself is measured.

Table 5.2

Satisfaction with Current Life Situation

	weighted base	employment situation		level of education		financial situation	
		satisfied	dissatisfied	satisfied	dissatisfied	satisfied	dissatisfied
Labour Force Status							
Employed	3,527	**69%**	12%	79%	4%	50%	21%
Unemployed	275	35%	**40%**	75%	9%	**17%**	**50%**
Not in the Labour Force	400	57%	18%	85%	3%	30%	39%
Use of Skills 1999 Program (among employed graduates)							
Great extent	1,511	**82%**	5%	**86%**	2%	**57%**	14%
Some extent	1,204	69%	10%	79%	4%	50%	20%
Very little	439	49%	24%	67%	8%	39%	32%
Not at all	354	41%	**37%**	71%	**10%**	29%	**43%**
Job Relatedness to 1999 Program (among employed graduates)							
Closely related	1,668	**81%**	5%	**86%**	1%	**59%**	14%
Somewhat related	971	67%	10%	77%	4%	50%	21%
Not related	844	47%	**29%**	69%	**9%**	32%	**37%**
Satisfaction with Job (among employed graduates)							
Very Satisfied	1,534	**91%**	3%	**88%**	2%	**63%**	13%
Satisfied	1,648	61%	10%	76%	4%	43%	24%
Dissatisfied	264	12%	59%	57%	9%	20%	49%
Very dissatisfied	64	6%	**78%**	65%	**15%**	17%	**52%**
Returned to Study							
Yes	1,976	64%	15%	82%	4%	39%	**31%**
No	2,218	67%	14%	78%	4%	**51%**	20%

Respondents answered on a 5-point scale, where 1=very dissatisfied and 5=very satisfied. Here, 1,2=dissatisfied and 4,5=satisfied. Findings for the middle ranking (3) are not shown

- cell size too small (<50) for reliable analysis

Don't know/refused responses not shown

Those who were very satisfied with their job (88%), using their skills to a great extent (86%) and who reported that their job was closely related to their field of study (86%) were the most likely to say that they were satisfied with their level of education. This compares to 65% who were very dissatisfied with their job, 71% who were not using their skills at all, and 69% whose job was not at all related.

A similar relationship exists between these variables and level of satisfaction with financial situation. Between 57 and 63% of those who had a job closely related to their field of study, were using their skills learned in their 1999 program to a great extent, and who were very satisfied with their job reported being satisfied with their financial situation. This compares to 17-30% of those who were not using their skills at

all, had a job unrelated to their field of study, and were very dissatisfied with their job. This correlation may be largely explained by the fact that graduates with jobs that are related to their field of study, and where they are putting their skills to use, generally earn higher wages. And, of course, higher wages significantly influence job satisfaction. The second component of financial satisfaction would include considerations of debt and savings, etc.

Not surprisingly, weekly employment earnings in the reference week had a strong impact on a graduate's level of satisfaction with their employment and financial situations (Table 5.3). The impact of these factors on satisfaction with level of education was not significant. Total debt outstanding (on loans taken out to finance the 1999 program) had the greatest impact on graduates' perceptions of their financial situation, with those owing the most least likely to report they were satisfied. This factor had no significant impact on the satisfaction with employment or level of education.

Table 5.3

Satisfaction with Current Life Situation

	weighted base	employment situation		level of education		financial situation	
		satisfied	dissatisfied	satisfied	dissatisfied	satisfied	dissatisfied
Range of Weekly Employment Earnings							
$500 or less	1,413	49%	26%	77%	6%	23%	43%
$501 - $700	844	69%	11%	77%	4%	41%	21%
$701 - $900	685	80%	8%	81%	3%	63%	12%
$901- $1,250	527	82%	6%	85%	2%	74%	9%
more than $1,250	212	83%	3%	89%	1%	82%	6%
Total Debt Outstanding (among graduates who borrowed money to finance the 1999 program)							
zero	300	70%	12%	75%	4%	57%	15%
less than $5,000	216	61%	13%	80%	4%	45%	19%
$5,000 - $14,999	600	68%	17%	80%	4%	44%	26%
$15,000 - $29,999	763	65%	16%	78%	3%	35%	36%
$30,000 or more	394	63%	19%	82%	5%	27%	42%

Respondents answered on a 5-point scale, where 1=very dissatisfied and 5=very satisfied. Here, 1,2=dissatisfied and 4,5=satisfied. Findings for the middle ranking (3) are not shown

- cell size too small (<50) for reliable analysis

Don't know/refused responses not shown

6. CONCLUSIONS AND IMPLICATIONS

Introduction

The main objective of this survey was to answer the question:

> *What is the nature of the transition 1999 Maritime university graduates have experienced between the learning force and the work force, and back again, taking into consideration their experience prior to enrolling in the program they graduated from in 1999?*

Graduates of the Class of 1999 earn about 20% more (two years after graduating) than their counterparts who graduated three years earlier, and are generally satisfied with the investments they made, both financially and in terms of the time invested. They enjoy high rates of employment and satisfaction with their jobs and level of education. Nearly half report having returned to school following graduation, usually for job- or personal improvement-related reasons.

As the analysis clearly shows, however, there are many interrelated factors impinging on post-graduation work force experiences, financial status, the decision to return to further study and mobility. As a result, there is no single typical transition experience, but rather several.

If, as seems to be the case, work force success (in terms of skill use, job relatedness and wages) and a reasonable financial status are the yard sticks by which graduates measure the value of their education (including whether they would pursue the same path) and even their general life situation, then it is clear that some groups of graduates are doing better than others, in many different ways.

Class of 1999 Core Divisions

Maritime universities serve a diverse group of people with different educational needs, and somewhat different motivations for attending. The core divisions of these groups are along lines of gender, province of origin and educational background.

Reflecting enrolment trends, women outnumber men in the graduating class. This gender imbalance in enrolments and among graduates raises policy implications warranting further study.

In addition, a good proportion of graduates came to the Maritimes from outside the region to begin studies leading to their 1999 degree. In fact, the top three high school feeder provinces were Nova Scotia, New Brunswick and Ontario. Finally, while for many graduates the 1999 degree was their first postsecondary credential, still others enrolled in their 1999 studies with at least some prior postsecondary education.

These core divisions had a significant influence on a graduate's choice of program, which, in turn, had a significant impact on the outcomes measured in this survey - employment-related, financial and educational.

Present Performance Affects Perceptions

Universities are crucibles for the advancement of research, the incubation of ideas, and community development, and their most important function is education. Universities in the Maritimes prepare their graduates to become thinking citizens and for participation in the work force, offering programs ranging from the traditional liberal arts to those more vocationally or professionally-oriented, such as Nursing and Engineering. Survey findings show that most graduates rated equally high the importance of acquiring job skills, increased income and acquiring specialized knowledge as reasons for enrolling in their 1999 program.

The interesting finding here is that graduates who did not initially place importance on acquiring skills for a particular job tend to do so if they returned to study, with about half saying they returned to school in order to get a job or a better job.

This finding underpins the tremendous effect work force performance has on Maritime graduates' perceptions. Work force performance includes employment status and history, earnings, and elements of job quality, such as the extent of skills use and the relatedness of the job to the program completed. The value graduates attach to their university education, their general outlook on life, and whether they would have chosen the same path over again really seems to depend on their relative successes in the labour market.

With respect to employment success, graduates tend to fall into two groups based on their field of study. The first group is made up of graduates who completed studies in more vocationally-oriented or applied programs: Mathematics & Physical Sciences, Engineering & Applied Sciences, Education, Commerce & Administration and Health Professions. The second group includes graduates who completed programs in Social Sciences, Humanities, Agricultural & Biological Sciences and Fine & Applied Arts. While this division holds true for the most part, there are some exceptions to the trend.

Graduates of the first group are more likely to be employed, to have a job closely related to their field of study, to be using the skills they learned in their 1999 program, and to earn more than graduates in the other group. They are also more likely than graduates of less vocationally-oriented programs to say that their educational program had helped them to find a job.

Possibly as a result, graduates of the first group are more likely to say that they would choose the field of study at university had they to do it over again, and less likely to say they returned to study.

Exploring this trend a bit further, we find that within the Mathematics & Physical Sciences category, it is the graduates of Computer/Information Technology related programs who are driving the performance of this group as a whole. Graduates of programs such as Mathematics and Geology tend not to fare as well than other members of the category.

In addition, within the Agricultural & Biological Sciences category, graduates of programs such as Animal Science counter the overall trend of the category, with higher employment rates, a greater likelihood of choosing the same field again, and a reduced likelihood of returning to study.

In order to rule out the potential effects of previous experience on work place performance, this analysis was redone to include only first degree holders (i.e., the analysis included only those graduates who enrolled in

their 1999 studies with a high school diploma). In fact, the findings show that the relationship outlined above tends to hold. In addition, it should be noted that within the first degree holders, there is no significant difference among the fields of study in mean age, and therefore we can assume a relatively equal level of work experience among these graduates.

What do we conclude from this? First, it is apparent that the more vocationally-oriented or applied in nature a program is, the more successful graduates will tend to be in the work force (e.g., quicker attachment to the labour market, finding more closely related employment), even when accounting for prior educational attainment and age at graduation. This is nothing new, and the only caution here for governments and institutions is to ensure that students are aware of all choices available to them. For those graduates of programs less strongly linked to the job market, providing career counselling designed to help them see how their skills can be generally applied would be useful.

On the other side of that same coin, information could be provided to potential employers to help them see how the skills of these graduates fit with workplace requirements. An awareness campaign designed to show that university graduates possess a suite of skills including research and analytical skills, and critical thinking abilities, that can be moulded to suit the needs of employers with further industry-specific training might go a long way to improving the outcomes of graduates whose programs are less vocationally-oriented, or whose particular fields are not in high demand.

Tables 6.1 and 6.2 present highlights of responses, by field of study, and compare the responses of the class as a whole with the responses of a sub-group: those graduates who enrolled in their 1999 program with a high school diploma.

Table 6.1a

Highlights of Graduate Responses - Entire Class

	average age at graduation	% female	% Investment of time worth it[1]	% Financial investment worth it[1]	% Employed in the reference week	Any periods of unemployment since graduating - %yes	% who returned to study post-1999	% who would choose same field of study
1999 Field of Study								
Health Professions	28	83%	83%	82%	94%	19%	30%	81%
Engineering & Applied Sciences	26	25%	83%	79%	86%	46%	35%	82%
Mathematics & Physical Sciences	25	30%	84%	84%	82%	45%	51%	78%
Commerce & Administration	27	47%	84%	80%	90%	43%	43%	82%
Education	31	69%	83%	79%	91%	38%	31%	82%
Social Sciences	26	69%	81%	71%	82%	55%	54%	74%
Fine & Applied Arts	26	66%	93%	78%	71%	73%	46%	83%
Agricultural & Biological Sciences	24	66%	82%	77%	72%	63%	66%	69%
Humanities	26	64%	88%	81%	75%	65%	64%	78%

[1] 4, 5 on a 5-point scale, where 1=not at all worth it and 5=well worth it; statistics based on questions asked at end of survey

Table 6.1b

Highlights of Graduate Responses - Among graduates who enrolled in the 1999 Program with a High School Diploma

	average age at graduation	% female	% Investment of time worth it[1]	% Financial investment worth it[1]	% Employed in the reference week	Any periods of unemployment since graduating - %yes	% who returned to study post-1999	% who would choose same field of study
1999 Field of Study								
Health Professions	24	85%	83%	87%	93%	28%	45%	82%
Engineering & Applied Sciences	24	22%	84%	83%	90%	47%	42%	83%
Mathematics & Physical Sciences	23	29%	84%	81%	80%	51%	60%	77%
Commerce & Administration	24	45%	83%	81%	90%	49%	45%	81%
Education	24	62%	80%	70%	80%	61%	57%	79%
Social Sciences	24	68%	78%	69%	76%	60%	61%	68%
Fine & Applied Arts	24	68%	97%	87%	73%	78%	49%	89%
Agricultural & Biological Sciences	23	67%	78%	71%	68%	68%	71%	66%
Humanities	23	63%	86%	80%	76%	69%	70%	74%

[1] 4, 5 on a 5-point scale, where 1=not at all worth it and 5=well worth it; statistics based on questions asked at end of survey

Table 6.2a

Highlights of Graduate Responses - Entire Class

	Among Employed Graduates				Among Graduates Employed Full-time	
	% job closely related	% using skills to great extent	% educational program helped to find job to great extent	% working full-time	mean weekly earnings*	
1999 Field of Study						
Health Professions	76%	70%	74%	94%	$885	a
Engineering & Applied Sciences	57%	44%	68%	98%	$872	a
Mathematics & Physical Sciences	51%	50%	54%	93%	$856	a
Commerce & Administration	48%	45%	52%	95%	$812	a
Education	64%	50%	51%	88%	$801	a
Social Sciences	32%	31%	36%	85%	$631	b
Fine & Applied Arts	40%	43%	40%	83%	$614	b
Agricultural & Biological Sciences	34%	33%	45%	87%	$569	b
Humanities	28%	31%	38%	82%	$568	b

*means with the same letter are not significantly different

Note: Within Mathematics & Physical Sciences, graduates of Computer Science/Information Technology related programs drive the performance of the group as a whole. Graduates of certain majors within Agricultural & Biological Sciences, such as Animal Sciences counter the trend of the category.

Table 6.2b

Highlights of Graduate Responses - Among graduates who enrolled in the 1999 Program with a High School Diploma

	Among Employed Graduates				Among Graduates Employed Full-time	
	% job closely related	% using skills to great extent	% educational program helped to find job to great extent	% working full-time	mean weekly earnings*	
1999 Field of Study						
Health Professions	75%	67%	72%	96%	$762	ab
Engineering & Applied Sciences	55%	38%	69%	98%	$852	a
Mathematics & Physical Sciences	51%	47%	53%	92%	$765	ab
Commerce & Administration	46%	45%	49%	95%	$703	b
Education	46%	**35%**	45%	82%	$612	c
Social Sciences	20%	24%	31%	81%	$572	c
Fine & Applied Arts	32%	**35%**	43%	87%	$596	c
Agricultural & Biological Sciences	26%	24%	38%	87%	$522	c
Humanities	21%	24%	34%	83%	$552	c

*means with the same letter are not significantly different

Note: Within Mathematics & Physical Sciences, graduates of Computer Science/Information Technology related programs drive the performance of the group as a whole. Graduates of certain majors within Agricultural & Biological Sciences, such as Animal Sciences counter the trend of the category.

Average Earnings Have Increased

Graduates of the Class of 1999 earn more than their counterparts who graduated in 1996. Employed graduates earn on average $696 per week, or $36,192 annually. This is 20% more than graduates of the Class of 1996 (in 2001 constant dollars, the Class of 1999 earnings advantage was 13%). The overall success of the Class of 1999, however, hides earnings disparities based on field of study, language and gender.

Graduates of more professionally-oriented fields (such as Engineering & Applied Sciences and Health Professions) earn significantly more than those who completed programs in fields such as Humanities and Agricultural & Biological Sciences. However, this survey was conducted just two years after graduation, and it may very well take non-vocational graduates longer to find their "footing" in the work world, with trips back to school to upgrade or to take programs with a direct link to the work force, hence the popularity of Education and Nursing, fields now in demand. Evidence from previous surveys does lend some encouragement for the lowest wage earners. A comparison of earnings of the Class of 1996 one and four years after graduation shows that even though the average monthly wages of graduates of the lowest-earning fields four years after graduating was less than the average monthly wages of graduates of the highest-earning fields just one year after graduating, the gap in earnings between these two groups did shrink over time. In 1997, graduates of Health Professions, Commerce & Administration, Engineering & Applied Sciences, Mathematics & Physical Sciences and Education earned 56% more than those who completed programs in Social Sciences, Fine & Applied Arts, Humanities and Agricultural & Biological Sciences; by 2000, this earnings advantage had shrunk to 48%.

In addition, results show that while French-speaking graduates are more likely than English-speaking graduates to find related employment, they earn, on average, 89% of the wages of English-speaking graduates. At least some of the language gap in earnings can be accounted for with differences in the average number of full-time hours worked; further study determining other factors involved is needed.

Another important survey finding is the continued existence of the gender gap in earnings. Among graduates working full-time, women earn $694 per week, or 85% of the earnings of their male counterparts, who make $812 per week. Similar results were recorded for the Class of 1996: one year after graduation, women working full-time earned 86% of men's wages. Four years later, this gap had widened somewhat, with women earning 82% of men's wages. At least part of this gap may be explained by differences in choice of field of study and the average number of full-time hours worked, but there are likely other factors influencing this wage gap. This is an important issue, and the Maritime Provinces Higher Education Commission has already identified it as one warranting further study.

Student Debt has Increased

Partly as a result of policy changes to government student loan programs, and increases in the cost of education over time, Class of 1999 graduates have borrowed significantly more than their predecessors. To finance their 1999 program, graduates borrowed $20,918 on average, nearly $5,000 more than the Class of 1996. Borrowing in the high range has also gone up considerably from the previous cohort, with over one-quarter (27%) saying they had borrowed $30,000 or more (compared to 12% of borrowers in the Class of 1996). At the time of the interview, 1999 graduates owed an average of $16,462 on these loans.

And, even though borrowing has increased, graduates were able to reduce their debt by 21% over two years, and 79% reported that they had always been able to make their payments on time. Those who did have difficulty repaying their loans tended to give reasons related to insufficient or irregular income.

The findings show that graduates spent an average of 13% of their earnings on paying down their student loans, up slightly from the Class of 1996 (who paid 11%). Again, we find that certain groups of graduates carry a higher burden than others. Graduates earning top wages can pay more on their debt each month than can graduates earning the lowest wages, and still have a lighter debt burden. One wonders what sacrifices graduates with higher debt-to-earnings ratios are making in order to manage their student debt payments.

Given the observed increases in the overall proportion of graduates who borrowed, and in the average amount borrowed, the trends in student borrowing must continue to be monitored to ensure loan programs continue to be a useful instrument in the funding of university education.

Furthermore, it is abundantly clear that the dialogue on student debt cannot take place without considering the relative impact of income on a graduate's ability to pay. In this context, it may be useful to design programs to teach students money management skills and to help students to clearly understand the long term impact of borrowing money to subsidize their education. Responsibility for debt lies largely with the student, but the provision of targeted information by lending agencies and/or institutions might go a long way to helping students and graduates cope with their debt.

There is no doubt that the journey to becoming free of student loan debt will be a long one for many graduates, but given their tendency to think their education had been worth the financial investment, it is clear that most realize the advantage they have gained by completing a university education.

Mobility

Perhaps among the greatest concerns of governments in the region is the stability and quality of their pool of highly skilled personnel - an important asset in attracting and retaining businesses and industries. The findings of this survey show that the retention (two years after graduating) of university graduates originally from the region has declined by 9 percentage points from the previous cohort.

Net outflow from the region now stands at 15%, pointing to the fact that not only are graduates originally from the Maritimes leaving, but that they are not being replaced by graduates originally from outside the region choosing to remain after graduating. In addition, this value is very close to the 14% net outflow calculated for the Class of 1996 *four years* after graduating, lending support to the fact that the Class of 1999 seems to be leaving the region in greater numbers than the Class of 1996. A longitudinal survey of the Class of 1999 four or five years after graduating will confirm whether the same proportion is leaving, but sooner, or whether their exodus has in fact reached a new level.

There are two factors that may have a negative impact on current rates of retention: one that can affect existing cohorts of graduates, and one that can affect future graduating classes. The first factor can be described as the latent potential of graduates originally from the region, and still living in the Maritimes, to move out of the region. Graduates were asked a series of questions about their willingness to move if they

were "offered a better job". In response to these questions, 42% said they would be willing to move to another part of Canada, and 29% said they would be willing to move to another country.

The second factor is the predicted overall increased influx of students into the Maritimes from provinces outside the region, resulting from the predicted longer-term population surge in the typical university-aged population, an increasing demand for university education in many provinces across Canada, as well as the short-term effects of Ontario's double cohort.

Although the effect of the double cohort on Maritime university enrolments and its potential impact on mobility patterns of subsequent graduating classes would be a relatively isolated event, the predicted population surge in the typical university-aged population as well as an increasing demand for university education in many provinces across Canada may result in an overall increased influx of students into the Maritimes from provinces outside the region.

It would not be unreasonable to predict, then, that over the coming decade, the net proportion of Maritime university graduates leaving the region will likely increase. This prediction depends on a *relative* increase in students from outside the region enrolling in, and graduating from, Maritime universities. It also depends on a continuation of the current pattern of graduates originally from outside the region leaving the Maritimes in large proportion following graduation.

The net loss of Maritime university graduates from the region is already an important public policy issue; it is likely to warrant even greater attention over the coming decade. Graduate mobility will continue to be monitored in future surveys.

Summary

The findings presented here clearly show that the Class of 1999 is a diverse group in many respects, and this is reflected in the nature of the transition experience. For some graduates, their university education resulted in an early pay-off; yet for others we see results of a continuing struggle to get established in the work force - lower earnings and decreased likelihood that they are using their skills or have a job closely related to their studies, all resulting in less job satisfaction. These graduates are more likely to return to study to increase their chances of success in the work-force.

It would be useful to follow the outcomes of these different groups to see whether or not the less successful graduates will catch up to their more successful peers over time, or whether the choice of program has a more long-term effect.

Appendix 1 - Major Fields of Study

Arts or Science - General

- Arts/Science - Combined
- Arts-General or undeclared major
- Science-General or undeclared major
- Science and Business Administration
- Interdisciplinary

Education, Physical Education, Recreation and Leisure

Elementary/Secondary Teacher Training

- Elementary/Secondary Teacher Training
- Art Education
- Commercial and Business Education
- Office Management Education
- Special Education
- Home Economics Education
- Industrial Arts - Teaching
- Music Education
- Leadership and School Development
- Intermediate Education
- Religious Education
- Adult, Continuing Extension Education
- Reading
- Moral/Values Education
- Elementary Education
- Elementary Education (French)
- Elementary Education (Social Studies)
- Secondary Education (General)
- Secondary Education (English)
- Secondary Education (French)
- Secondary Education (History)
- Secondary Education (Mathematics and Science)
- Secondary Education (Geography)
- Secondary Education (Social Studies)
- Teaching History (Geography)
- Secondary Education (Sociology)
- Secondary Education (Chemistry)
- Secondary Education (Biology)
- Secondary Education (Physics)
- Remedial Teaching
- Teaching French as a Second Language
- Teaching English as a Second Language
- Practical French
- Other Elementary/Secondary Teacher Training

Higher Education, Postsecondary Teacher Training

- Higher Education, Postsecondary Teacher Training

Kindergarten, Pre-school Techer Training

- Kindergarten, Pre-School Teacher Training

General Education

- Education (General)
- Bachelor of Arts, Bachelor of Education
- Bachelor of Science/Bachelor of Education
- Bachelor of Computer Science/Bachelor of Education
- Bachelor of Business Administration/Bachelor of Education
- Bachelor of Kinesiology/ Bachelor of Education

Non-Teaching Fields

- School librarianship
- Educational Administration
- Educational Psychology
- Guidance and Counselling
- Curriculum Specialization
- Measurement and evaluation
- Education Foundations
- Comparative Education
- School Psychology
- Educational Media
- English Communication
- Individual and Family Studies
- Educational Technology
- Childhood Education - Introductory
- Childhood Education: Advanced
- Other non-teaching fields

Physical Education

- Physical Education
- Health Education

Kinesiology, Human Kinetics and Kinanthropology

- Kinesiology, human kinetics and kinanthropology

Recreation

- Recreation
- Leisure Studies
- Recreation Management

Fine and Applied Arts

Fine Arts

- Fine Art, General
- Art History
- Other Fine Arts

Music

- Music
- Music Theory
- Church Music
- Choral Music
- Composition
- History of Music
- Organ
- Piano
- Violin
- Singing, Opera Singing
- Brass Instruments
- Jazz Studies
- Music Performance
- Other Music

Other Performing Arts

- Performing Arts, General
- Drama, Theatre
- Costume Studies
- Other Performing Arts

Applied Arts

- Industrial Design
- Drawing and Design
- Graphic arts
- Photography
- Lithography
- Printing
- Ceramics
- Jewellery Design
- Painting
- Sculpture
- Textile
- Studio
- Communication Design
- Applied Arts in Craft and Design
- Fine Arts in Craft
- Fine Arts in Design
- Other Applied Visual Arts

Humanities and Related

Classics, Classical and Dead Languages

- Classics, Classical and Dead Languages
- Greek
- Hebrew
- Latin

Classics
Other Classics, Classical and Dead Languages

English Language and/or Literature
English Language and/or Literature
Literature of the West
Other English Language and/or Literature

French Language and/or Literature
French Language and/or Literature
History (French)

History Studies
History
Specific Area or Period History
Material History
Museum Studies
History of Science and Technology
History/Information Technology
History-Other

Journalism Studies
Journalism (Languages and/or Literatures)
Journalism/Contemporary Studies
Journalism/Early Modern Studies
Journalism (Languages and/or Literatures, Other)

Language and/or Literature - Other
Comparative Literature
Medieval languages
Asian languages and literatures
Slavic languages and literatures
German
Spanish
Russian
Japanese Language and literature
Other languages and literatures

Library Science
Library Sciences
Library Science and Information Studies/ Law
Library Science and Information Studies/ Public Administration
Library Science and Information Studies/Business Administration

Other Records Science
Other records sciences

Linguistics
Linguistics

Other Mass Communication Studies
Leadership Studies (Interdisciplinary)
Mass Communication Studies
Public Relations Management
Multimedia
Film
Other Mass Communications Studies

Philosophy
Philosophy
Philosophy and Religion
Philosophy- Other

Religious Studies
Religious Studies

Theological Studies
Theological Studies (Prof[illegible]ogramme, preparation for the ministry)
Pastoral Theology
Systematic Theology
Theological Studies (Professional programm[illegible] preparation for the ministry) - Other

Translation/Interpretation
Translation and Interpretation

Social Sciences and Related

Anthropology
Anthropology
Social Anthropology

Archaeology
Archaeology

Canadian Area Studies
Canadian Studies
Native Canadian Studies
American Indian Studies
Acadian Studies
Atlantic Canada Studies
Canadian Studies - Other

Area Studies, Other
Medieval Studies
Asian Studies
Slavic studies
Celtic Studies
Western Civilization
North American Studies
International Studies
African Studies
Caribbean Studies
Early Modern Studies
Contemporary Studies
Cultural Studies
Development Studies
International Development Studies
Other area studies

Criminology
Criminology
Criminal Justice

Specialized Administration Studies
Public Administration
Health Administration
Health Administration/Master of Business Administration
Food Service Management
Hospitality-Tourism
Public Administration - Law
Fisheries Administration
Marine Management
Sport Administration
Other specialized administration studies

Demography
Demography

Economics
Economics
Agricultural Economics
Development Economics
Economics - Other

Geography
Geography

Law and Jurisprudence
Law and Jurisprudence

Man/Environment Studies
Regional, rural, urban, city planning and community development
Environmental Design Studies
Urban Studies
Environmental studies and Law
Man/Environment Studies - Other

Political Science
Political Science
Policy Studies

Child Study
Child Study

Psychology
Psychology
Applied Psychology
Clinical Psychology
Neuroscience
Biology/Psychology
Psychology - Other

Secretarial Studies
- Secretarial Science
- Office Automation
- Information Technologies/Computer Studies

Social Work Studies
- Social work and social welfare
- Alchoholism & Toxicology
- Social work and social welfare - Other

Sociology
- Sociology
- Sociology and Anthropology
- Human Rights

Military Studies
- Military Studies

Other Social services
- Other social services

Gerontology
- Gerontology

Women s Studies
- Women's Studies

Community Animation
- Community Animation

Community Studies
- Community Studies
- Biodiversity
- Psychology, Health and Environment
- Integrative Science

Cooperative Systems
- Cooperative Systems

Commerce and Administration
- Commerce, Management, Business Administration, Administrative Studies/ Sciences
- Accounting
- Accounting & Finance
- Finance
- Industrial Relations and Personnel Management
- Entrepreneurship
- Technology Management and Entrepreneurship
- Marketing-Retailing
- Organizational Behaviour
- Management
- Information Management
- Operations Management
- Quantitive Methods
- International Business
- Human Resources Management
- Business Administration - Law
- Business Administration - Economics
- Business Administration (Spanish, French and German)
- Business Computing
- Business Administration - Computer Science
- Electronic Commerce
- Community Organizations Management
- Community Economic Development
- Financial Services
- Commerce, Management, Business Administration, Administrative Studies/ Sciences - other

Agricultural and Biological Sciences

Agriculture
- Animal Science
- Plant Science
- Pest Management
- Agribiology: Environmental
- Soil Science
- Agricultural Chemistry
- Agricultural Science
- Food Science
- Agricultural Mechanization
- Aquaculture
- Agricultural Business
- Other Agriculture

Biochemistry
- Biochemistry
- Biochemistry

Biology
- Forensic Science
- Genetics
- Microbiology
- Biology-Chemistry
- Biology-Mathematics-Statistics
- Biology-Physics
- Biological Sciences(Pre-Med)
- Environmental Biology
- Applied Biology
- Biomaterials Science
- Environmental Science
- Other biology

Biophysics
- Biophysics

Botany
- Botany

Fisheries and Wildlife Management
- Fisheries and wildlife management

Household Science and Related Studies
- Food Service Management
- Food & Nutrition
- Dietetics
- Clothing & Textiles
- Consumer Studies
- Family Studies
- Housing & Facility Management
- Other household sciences and related

Veterinary Medicine
- Veterinary Medicine

Veterinary Sciences
- Veterinary Sciences
- Veterinary Medicine Specialties

Zoology
- Zoology
- Fisheries
- Aquaculture and Fisheries
- Marine Biology
- Zoology - Other

Toxicology
- Toxicology

Engineering and Applied Sciences

Architecture
- Architecture
- Construction Management & Administration
- Interior Design

Aeronautical and Aerospace Engineering
- Aeronautical and aerospace engineering

Chemical Engineering
- Chemical Engineering

Civil Engineering
- Civil Engineering
- Transportation Planning
- Construction Engineering and Management

Design, System Engineering
- Design, Systems engineering

Electrical Engineering
- Electrical Engineering

Computer Engineering
- Computer Engineering

Industrial Engineering
- Industrial Engineering

Mining Engineering
Mining Engineering
Mechanical Engineering
Mechanical Engineering
Metallurgical Engineering
Metallurgical Engineering
Other Engineering Studies
Engineering
Biomedical Engineering
Geological Engineering
Petroleum Engineering
Agricultural/Biological Engineering
Environmental Engineering
Surveying Engineering
Mapping, Charting and Geodesy
Fisheries Engineering
Naval Architecture and Marine Engineering
Theory and Applied Mechanics
Technology Management
Other engineering
Engineering Science
Engineering Science
Engineering Physics
Engineering Mathematics
Engineering General
Engineering General
Land Information Management
Land Information Management
Forestry Studies
Forestry
Forestry Entomology
Forest Management
Forest Wildlife Management
Wood Science and technology
Forest Engineering
Forestry - Other
Landscape Architecture
Landscape architecture
Technology
Chemical Technology
Manufacturing Technology
Industry Technology
Environmental Technology
Emergency Management
Environmental Health Technology
Nautical Science
Landscape Horticulture
Management Technology
Petroleum Technology
Technology
Technology - Other

Health Professions and Occupations

Dentistry
Dentistry
Dental Specialties Studies
Dental specialties
Oral-Maxillofacial Surgery
Periodontics
Prosthodontics
Dental Specialties-Other
Medicine
Medicine
Basic Medical Sciences
Basic Medical Sciences
Anatomy
Medical Biochemistry
Biophysics
Embryology
Endocrinology
Genetics
Histology
Neurophysiology
Pharmacology
Physiology
Physiology and Biophysics
Basic Medical Sciences
Medical Specialties Studies
Medical Specialties
Anaesthesiology
Cardiology
Dermatology
Endocrinology and Metabolism
Emergency Medicine
Family Medicine, general practice
Gastroenterology
Geriatrics
Haematology
Infectious Disease
Internal Medicine
Neurology
Neonatal and Perinatal Medicine
Paediatrics
Paediatric Nephrology
Psychiatry
Diagnostic Radiology
Nuclear Medicine - Therapeutic Radiology
Respiratory Medecine
Rheumatology
Palliative Medicine
Medical Specialties
Paraclinical Science
Laboratory Medicine - Microbiology
Immunology
Microbiology
Laboratory Medicine- Pathology
Pathology
Other paraclinical sciences
Surgical Specialties Studies
Surgical Specialties
Cardiovascular and cardiothoracic Surgery
Neurosurgery
Obstetrics and Gynaecology
Paediatric General Surgery
Ophthalmology
Orthopaedic Surgery
Otorhinolaryngology
Plastic Surgery
Urology
Other Surgical Specialties
Nursing Studies
Nursing
Outpost Nursing
Psychiatric Nursing and Mental Health
Critical Care Nursing
Nursing (Post RN)
Nurse Practitioner
Nursing - Other
Optometry
Optometry
Pharmacy
Pharmacy
Epidemiology and Public Health
Epidemiology and Public Health
Community Medicine and hygiene
Public Health Education
Occupational Health and Safety
Epidemiology and Public Health - Other
Rehabilitation
Human Communication Disorders

Occupational Therapy
Physiotherapy
General Rehabilitation - Physical Med.

Medical Technology
Medical Technology
Radiography
Radiation Therapy
Nuclear Medicine (technology)
Medical Technology - Other

Dental Hygiene
Dental Hygiene

Other Health Professions and Occupations
Other health professions and occupations
Health Information Management

Mathematics and Physical Sciences

Computer Science Studies
Computer Science
Data Analysis
Computer Science- Applied
Computer Science & Bus.Admin
Computer Organization
Information Storage and Retrieval
CAD-CAM Oriented Computer Graphics
Multimedia
Information Management
Networking Systems
Computer System Development
Geographical Information Systems
Information Technology
Computer Science
Arts/Computer Science
Software Development

Mathematics
Mathematics
Mathematical Statistics
Mathematics-Physics
Mathematical Science
Other Mathematics

Chemistry Studies
Chemistry
Analytical Chemistry
Inorganic Chemistry
Organic Chemistry
Physical Chemistry
Chemistry - Other

Geology and Related
Geology and related
Geology - Physics
Geology - Chemistry
Environmental Geochemistry
Geology - Other

Metallurgy, Materials Science
Metallurgy, Materials Science

Meteorology
Atmospheric Science
Climatology
Other meteorology

Oceanography and Water Studies
Oceanography and water studies
Fisheries Management
Other Oceanography and water studies

Physics Studies
Astrophysics and Astronomy
Aerospace sciences
Physics - Chemistry
Applied Physics
Other physics

Information Technology - This grouping overlaps with the main field of study groupings.
Technology Management and Entrepreneurship
Information Management
Electrical Engineering
Data Analysis
Computer Science - Applied
Computer Science & Business Administration
Computer Organization
Information Storage and Retrieval
CAD-CAM Oriented Computer Graphics
Multimedia
Information Management
Networking Systems
Computer System Development
Geographical Information Systems
Information Technology
Computer Science
Arts/Computer Science
Software Development

Degree Level

Bachelor's Degree
All Bachelor level degrees except those designated First Professional.

First Professional
LLB or equivalent
Doctor of Medicine
Doctor of Veterinary Medicine
Doctor of Dental Surgery
B.Sc. Pharmacy
Master of Arts Theology
Master of Divinity

Diploma/Certificate
All diploma and certificate credentials at the undergraduate or graduate level.

Master's/Doctorate
All Master's and Doctoral level programs, except those designated "First Professional".

Appendix 2 - Occupation Coding Scheme (derived from Statistics Canada National Occupation Classification)

Teachers and Professors
- University Professors
- Post-Secondary Teaching and Research Assistants
- College and Other Vocational Instructors
- Secondary School Teachers
- Elementary School and Kindergarten Teachers
- School and Guidance Counsellors

Computer related (programmes and analysts)
- Computer Systems Analysts
- Computer Programmers

Nurses
- Head Nurses and Supervisors
- Registered Nurses
- Registered Nursing Assistants

Social Workers
- Social Workers
- Family Marriage and Other Related Counsellors
- Community and Social Service Workers
- Employment Counsellors

Retail Salespersons
- Retail Salesperson and Sales Clerks

Financial / Accounting
- Financial Auditors & Accountants
- Securities Agents Investment Dealers and Traders
- Other Financial Officers
- Financial Investment Analysts

Managers
- Sen Mgrs - Financial Communications etc
- Sen Mgrs-Health Education Social and Community Services
- Financial Mgrs
- Human Resources Mgrs
- Insurance Real Estate and Financial Brokerage Mgrs
- Banking Credit and Other Investment Mgrs
- Information Systems and Data Processing Mgrs
- Mgrs in Health Care
- Admin in Post-Secondary and Vocational Training
- School Admin of Element Secondary Education
- Mgrs in Social Community and Correctional Services
- Govt Mgrs in Health-Social Policy Devel-Prg Admin
- Govt Mgrs in Economic Analysis
- Govt Mgrs in Education Policy
- Other Mgrs in Public Admin
- Mgrs in Publishing Motion Pictures etc
- Recreation and Sport Programme and Service Directors
- Sales Marketing and Advertising Mgrs
- Retail Trade Mgrs
- Restaurant and Food Service Mgrs
- Accomodation Service Mgrs
- Commissioned Police Officers
- Commissioned Officers Armed Forces
- Other Services Mgrs
- Construction Mgrs
- Transportation Mgrs
- Facility Operation Mgrs
- Maintenance Mgrs
- Primary Production Mgrs
- Manufacturing Mgrs

Administrative / Clerical
- Customs Ship and Other Brokers
- General Secretaries
- Legal Secretaries
- Medical Secretaries
- Court-Med Transcript
- General Office Clerks
- Records and File Clerks
- Receptionists Switchoboard Operator
- Data Entry Clerks
- Typesetters and Rel Occ
- Telephone Operator
- Accouting and Rel Clerks
- Payroll Clerks
- Tellers Financial Services
- Banking Insu-Fin Clerks
- Collectors
- Admin Clerks
- Library Clerks
- Corr-Publication Clerks
- Customer Service Cerks
- Survey Interviewers
- Mail Postal Clerks
- Letter Carriers
- Couriers and Messengers
- Shippers and Receivers
- Storekeepers and Parts Clerks
- Production Clerks
- Purchase- Inven Clerks
- Dispatchers and Radio Operator

Engineers
- Civil Engineers
- Mechanical Engineers
- Electrical and Electronics Engineers
- Chemical Engineers
- Industrial and Manufact Engineers
- Mining Engineers
- Geological Engineers
- Aerospace Engineers
- Computer Engineers
- Other Professional Engineers

Physical and Life Science Professionals
- Chemists
- Geologists, Geochemists and Geophysicists
- Meteorologists
- Biologist and Related Scientists
- Forestry Professionals
- Agricultural Reps & Consultants

Technical Occupations in Natural and Applied Sciences
- Applied Chemical Technologists and Techs
- Geological and Mineral Technologists and Techs
- Biological Technologists and Techs
- Agricultural and Fish Products Insp
- Conservation and Fishery Officers
- Landscape and Horticulture Techs and Specialists
- Civil Engineering Technologists and Techs
- Mechanical Engineering and Manufacturing Technologists and Techs
- Industrial Engineering and Manufacturing Technologists and Techs
- Electrical Engineering Technologists and Techs

Electronic Service Techs
Architectural Technologists and Techs
Industrial Designers
Drafting Technologists and Techs
Survey Technologists and Techs
Mapping and Related Technologists and Techs
Nondestructive Testers and Insp
Insp in Public & Envirl Health & Occ Health & Safety
Construction Inspector
Air Pilots Flight Engineers and Flying instructors

Health Professionals (other than nurses)
Specialist Physicians
General Practitioners and Family Physicians
Dentists
Veterinarians
Pharmacists
Dietitians and Nutritionists
Audiologists and Speech-Language Pathologists
Physiotherapists
Occupational Therapists

Technical Occupations in Health
Other Professional Occ in Therapy and Assessment
Medical Laboratory Technologists
Medical Laboratory Techs
Animal Health Technologists
Resp Therapists and Clinical Perfusionists
Medical Radiation Technologists
Other Medical Technologists and Techs
Dental Hygienists and Dental Therapists
Opticians
Ambulance Attendants and Other Paramedical Occ
Other Technical Occ in Therapy and Assessment
Dental Assistants
Nurse Aides and Orderlies
Other Aides and Assistants in Support of Health Services

Policy Researchers, Program Officers and Consultants
Natural and Applied Science Policy Researchers Consultants
Economists and Economic Policy Researchers and Analysts
Economic Development Officers and Marketing Researchers and Consultants
Social Policy Researchers Consultants and Prg Officers
Health Policy Researchers Consultants and Prg Officers
Education Policy Researchers Consultants and Prg Officers
Recreation and Sports Prg Supervisors and Consultants
Programme Officers Unique to Govt
Other Professional Occ in Social Science

Occupations in Art, Culture, Recreation and Sport
Librarians
Writers
Editors
Journalists
Professional Occ in Public Relations
Translators Terminologists and Interpreters
Producers Directors Choregraphers and Related Occ
Conductors Composers and Arrangers
Musicians and Singers
Dancers
Actors
Painters Sculptors and Other Visual Artists
Library and Archive Techs and Assistants
Technical Occ Related to Museums and Galleries
Photographers
Other Technical Occ Performing Arts
Support positions in Performing Arts
Announcers and Other Broadcasters
Graphic Designers and Illustrating Artists
Theatre Fashion Exhibit and Other Creative Designers
Artisans and Crafts People
Athletes
Coaches
Sports Officials and Referees
Prg Leaders and Instructors in Recreation and Sport

Bartenders, Food and Beverage servers
Bartenders
Food and Beverage Servers

Other
Specialists in Human Resources
Professional Occ in Business Services to Management
Super General Office and Admin Support Clerks
Super-Finance and Insurance Clerks
Super-Library Correspondence Clerks
Super-Mail and Message Distribution Occ
Super-Recording Distributing and Scheduling Occ
Admin Officers
Executive Assistants
Personnel and Recruitment Officers
Property Admin
Purchasing Agents and Officers
Conference and Event Planners
Immigration UI and Revenue Officers
Bookkeepers
Loan Officers
Insurance Adj and Claims Exam
Insurance Underwriters
Architects
Urban and Land Use Planners
Mathematicians Statisticians and Actuaries
Lawyers and Quebec Notaries
Psychologists
Ministers of Religion
Probation and Parole Officers and Related Occ
Paralegal and Related Occ
Early Childhood Educators
Instructors and Teachers of Disabled Persons
Other Instructors
Retail Trade Supervisors
Food Service Supervisors
Executive Housekeepers
Cleaning Supervisors
Other Service Supervisors
Technical Sales Specialists Wholesale Trade
Insurance Agents and Brokers
Real Estate Agents and Salespersons
Cook
Butchers and Meat Cutters Retail and Wholesale
Bakers
Policy Officers
Firefighters
Sales Representatives Wholesale Trade Non-Technical
Travel Counsellors
Pursers and Flight Attendants
Airline Sales and Service Agents
Ticket and Cargo Agents and Related Clerks Except Airline
Hotel Font Desk Clerks
Tour and Travel Guides
Amusement Attraction Oper and Other Amusement Occ
Hosts & Hostesses
Correctional Service Officers
By-law Enforcement and Other Regulatory Officers
Occ Unique to the Armed Forces
Visiting Homemakers Housekeepers and Related Occ
Elementary and Secondary School Teacher Assistants

Early Childhood Educator Assistants
Babysitters Nannies and Parent Helpers
Estheticians Electrologists and Related Occ
Cashiers
Service Station Attendants
Grocery Clerks and Shelf Stockers
Other Elemental Sales Occ
Elemental Medical and Hospital Assistants
Food Service Counter Attendants and Food Preparers
Kitchen and Food Service Helpers
Security Guards and Related Occ
Light Duty Cleaners
Specialized Cleaners
Janitors Caretakers and Building Superintendents
Attendants in Recreation and Sport
Other Elemental Service Occ
Contractors and Super- Pipefitting Trades
Contractors and Super- Mechanic Trades
Super- Printing and Related Occ
Telecommunications Installation and Repair Workers
Welders
Blacksmiths and Die Setters
Carpenters
Cabinetmakers
Bricklayers
Painters and Decorators
MV Mechs Techs and Mechanicals Repairers
Tailors Dressmakers Furriers and Milliners
Truck Drivers
Taxi and Limousine Drivers and Chauffeurs
Engine Room Crew Water Transport
Automotive Mechanical Installers
Other Repairers and Servicers
Material Handlers
Construction Helpers-Labour
Public Works and Maint
Railway - Trans Labour
Super- Logging and Forestry
Super- Mining and Quarrying
Farmers and Farm Mgrs
Nursery -Oper and Mgrs
Landscaping - Grounds Maint Contractors and Mgrs
Super- Landscape and Horticulture
Fishing Vessel Skippers and Fishermen-women
Oil and Gas Well Drilling Workers
Silviculture and Forestry Workers
General Farm Workers
Nursery and Greenhouse Wkrs
Fishing Vessel Deckhands
Landscaping and Grounds Maintenance Labourers
Aquaculture and Marine Harvest Labourers
Super- Mineral and Metal Processing
Super- Petroleum Gas and Chemical Processing and Utilities
Super- Food Beverage and Tobacco Processing
Super- Plastic and Rubber Products Manufacturing
Super- Forest Products Processing
Super- MV Assembling
Super- Other Products Manuf and Assembly
Process Control and Machine Operator
Printing Machine Operator
Photographic and Film Processors
MV Assemblers Insp and Testers
Furniture Finishers and Refinishers
Labourers in Wood Pulp and Paper Processing
Labourers in Rubber and Plastic Prodcuts Manuf
Labourers in Fish Processing

FEEDBACK

We welcome comments and suggestions on this report and how to make future reports more useful and informative. Please complete this feedback sheet or email ideas to mphec@mphec.ca, or fill out the form online at www.mphec.ca.

Please return completed forms to:

Graduate Follow-up Report (Class of 1999 in 2001) Feedback
Maritime Provinces Higher Education Commission
P.O. Box 6000
Fredericton, NB E3B 5H1

Fax: (506) 453-2106

Overall Satisfaction with the Report

For each question, please place an X in the box beside the *most appropriate response*.

1. How did you obtain your copy of the report?

- ❑ It was mailed to me
- ❑ I obtained my copy from a colleague
- ❑ I accessed it through the Internet
- ❑ I ordered my own copy
- ❑ Other, please specify

2. To what extend have you read or browsed through the report?

- ❑ Have browsed through the entire document
- ❑ Have browsed though the document and read specific chapters
- ❑ Have read the entire document

3 How satisfied are you with the following aspects of the report?

a. Length	❑ too short	❑ about right	❑ too long	
b. Clarity/readability	❑ excellent	❑ good	❑ fair	❑ poor
c. Organization/format	❑ excellent	❑ good	❑ fair	❑ poor
d. Use of figures	❑ excellent	❑ good	❑ fair	❑ poor
e. Quality of data and analysis	❑ excellent	❑ good	❑ fair	❑ poor

Usefulness of the Report

4. The overall goal of the report is to provide up-to-date information on the nature of the transitions Maritime graduates have experienced between their studies and the labour force, and back again to school since their graduation in 1999. How successful is the report in achieving that goal?

- ❑ Very successful
- ❑ Fairly successful
- ❑ Limited success
- ❑ Not successful

5. How have you, or are you likely to, use the information in this report?

Other Comments

6. What did you find most useful about this report?

7. How would you improve this report? What suggestions do you have for future reports?

Reader Information

8. Where do you live?

- ❑ Newfoundland and Labrador
- ❑ Nova Scotia
- ❑ New Brunswick
- ❑ Prince Edward Island
- ❑ Québec
- ❑ Ontario
- ❑ Manitoba
- ❑ Saskatchewan
- ❑ Alberta
- ❑ British Columbia
- ❑ Northwest Territories
- ❑ Yukon
- ❑ Nunavut
- ❑ Outside Canada

9. What is your main position or role?

- ❑ Sr. University Manager
- ❑ University Administrator
- ❑ Faculty
- ❑ Student
- ❑ Government Official
- ❑ General Public

If you wish to be contacted, please provide your contact information.